ITHURIEL

THE AUTOBIOGRAPHY OF ITHURIEL

[A Chapter in Psychology]

By IRONQUILL

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EXPLANATION.

The reason this book is called a "Second Edition" is this: The original manuscript was prepared prior to, and finished in, the year 1890. The writer then being busy, the publication was delayed. Afterwards, in the spring of 1905, the writer took the manuscript to New York City for publication. In the New York Central Depot, in March of that year, the package containing the manuscript was stolen immediately after his arrival, while he was sending off some telegrams in the crowded depot. No copy had been preserved. After much effort and expense in trying to regain the lost manuscript, the writer being unsuccessful set about its reproduction, which was finished in 1909. From time to time brief, fugitive and anonymous pieces have appeared in newspapers, showing that some one was furtively using the lost manuscript. The writer believes it to be in a certain New York newspaper office, but he has failed in his efforts to establish that fact. Hence this book is called a second edition.

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PREFACE TO THE AUTOBIOGRAPHY OF ITHURIEL.

SECTION 1.—**Introduction to Preface.** Before me, Ironquill, personally appeared Ithuriel, the archangel, who said to me, "Publish what I shall tell you." Then upon a tablet of many leaves he began to write, reading aloud as he wrote. Listening, I gazed at him steadfastly as he spoke, noticing also that he wrote rapidly with a fountain pen of crystal, filled with purple ink. When he began he had the seeming of a young man, and as he wrote he appeared to grow old, and when he finished in an hour he seemed to have the appearance of great age. Then he handed me the tablet, saying, "This is my biography; you know something of it—we have been brothers thrice." He departed through the door, which he did not open, as goes a shadow through glass. Then upon a typewriter I began to transcribe the writing, turning page on page. And as I turned the pages the writing which had been transcribed disappeared, leaving an odor as of crab-apple blossoms; and when finished the paper from which I copied began to fade away and all that was left was a heap of tiny pellicles, which afterwards dissolving, disappeared. Then I sent the autobiography to a magazine for publication, but it was returned charged with being incomprehensible; then I sent it to another magazine and it was again returned, the sender saying he could not understand it, and the manuscript was marked with queries and interrogatories. Then

I determined to write a preface to it and print it myself. The preface follows herewith; it is much longer than the autobiography, and it must needs be so, because there is so much to explain. But when you have read the preface you can understand the autobiography and many things else.

SEC. 2.—**Preface.—The Atom.—Divisibility.** If into a darkened room a slender ray of sunshine be admitted, we see myriads of motes which, in the broad daylight, are invisible. As we watch them floating in the beam of light, in the darkened room, they seem to be alive and to hover, undisturbed by the power of gravity, like flocks of blithe and airy birds. These motes are the smallest visible particles of matter; yet, are huge in comparison with the atom.

In order to get an idea of the atom let us subdivide the mote. Matter is not forever divisible. It cannot be divided until nothing is left. It cannot be destroyed by subdivisions. There is a limit, and there is an ultimate form of matter which is incapable of further subdivision. This form we call the "atom." When a particle of matter has been subdivided as long as the human mind can contemplate, then what remains is "the atom." To illustrate: Suppose we take the smallest mote that is floating in the sunlight, if we subdivide it into a thousand equal parts we have divided it apast microscopic detection. Then if we subdivide each part into a thousand we have a million parts; this is as far as an abstraction may ordinarily go. If now we subdivide each of these parts into a million other parts, then we have divided the mote into a thousand billion parts, and this is as far, yes much farther, than any mind can contemplate. Here we may stop, and call the resultant parts, which as to us cannot exist, except in contemplation of mind, an "atom."

It is the end of all subdivision. It is the smallest form of matter.

Therefore we say, by way of definition: An atom is infinitely small, and is incapable of subdivision.

SEC. 3.—**Shape of the Atom.** If the shape of the atom were not round it would so become. Roundness gives the most volume for the least surface. If there were corners or angles to an atom they might be broken off, which would show the atom to be still divisible, which is contrary to our definition. The round shape gives more fluidity, reduces the probability of friction, and increases the activity of the atom. We would as soon think of a square rain-drop as a square atom.

Again, if one atom were larger than another it would show that the larger could be reduced in size, and therefore divisible, which is contrary to our definition; hence they must be all of the same form and size.

Therefore we say: Atoms are round and uniform in size.

SEC. 4.—**Color of Atoms.** Atoms have no quality which may be known as color. The phenomenon of color is something which pertains to the individual man who experiences it. That which looks red to one man may look green to another. In fact, all is black and dark around us. When a missile is hurled at us, and smites us, it produces a result called "pain"; when another substance, such as a sunbeam, strikes us in a certain place, the eye, it produces another result, called "light." We will treat of this subject further on. Color is an effect produced upon the eye of some animal that can see. In the dark, or to a blind man, all substances are of the same color. So color is not a quality of the substance seen, but a picture in the eye of the see-er. Again, if the primordial atoms were all of the same

shape and substance they would be uniform in color, if any they had; that is to say, they would all look alike. Color, as it does not pertain to the object, is not objective; but, as it pertains to the beholder, is wholly subjective.

Therefore we say: The atom is without color.

SEC. 5.—**Weight of Atoms.** Weight is defined to be the measure of the earth's attraction. At the center there is no weight, and the f rther a substance is removed from the surface of the earth the less the attraction. But this explanation does not explain. Why the attraction? Simply this: all atoms are more or less gregarious. They come to have their likes and dislikes, their ambitions and experiences. They may swarm together like bees. They unite according to their experiences; and according to their habits formed from such experiences. They make the hard granite, the oak tree, the mammal. Planets are but cities in the great ocean of space, builded from migratory atoms. As some atoms are less gregarious than others, just as pelicans are less gregarious than crows, it transpires that some atoms have a lesser measure of the earth's so-called attraction than others. Therefore weight is not a quality or attribute of matter, but a mental characteristic of matter, growing out of the experience of the atom.

Atoms have repulsions as well as attractions, the unlike repels the unlike, and as atoms come to have different experiences, the different aggregations differ in experience, gregariousness, and hence attraction. We will hereafter show how experience comes to pass which shapes so strongly the mental condition of the atom. For the present we will confine ourselves to saying that weight is an attribute of mind and not a property of matter. I love to visit my friends, never my enemies: this

impulse to visit is the phenomenon of attraction. The measure of an impulse is called weight; but it does not apply to matter as one of its permanent and fundamental properties.

Therefore we say: Atoms have no such separate property as weight.

Sec. 6.—**Atomic Solidity.** An atom cannot be either perforated, penetrated, abraded, bruised, or crushed, because if so it would be divisible. The primordial atom was round and indestructible. It was harder than adamant, because adamant is merely a gregarious combination of similar atoms. There is nothing to which the hardness of the atom may be compared. If it has always existed, or if it is always hereafter to exist, its durability, solidity and hardness must be infinite. If it were placed upon an anvil and struck at with a steel hammer, the atom would not be broken. The atom would fall down through the yawning chasms in the metal of the anvil. As well might one seek to break a grain of sand by placing it upon the Enchanted Mesa of Arizona and beating it with the bushy top of a giant sequoia. Fire cannot burn the atom, because fire is made of atoms; chemicals cannot change or destroy it, because the chemicals themselves are composed of similar atoms. Time cannot change the atom, because it loses nothing by time, being indivisible. It must be indestructibly hard to be indivisible.

Therefore we say: Atoms are infinitely hard.

Sec. 7.—**Texture and Quality.** In the beginning there were Space, Time, and Matter. The matter was uniform in character. The primordial atoms were all alike in substance, texture, form, and quality. By the term "primordial atoms" we mean matter as hereinbefore described, in its ultimately divided and originally tenuous form.

There are many things that are unthinkable and unknowable. The origin of matter is unthinkable. It was either created out of nothing or else it always existed. Both of these cannot be true; one of them must be true; but each is unthinkable. Some unthinkable propositions are less unthinkable than others, and we may adopt the one least unthinkable. As we look around us we see that everything has a beginning; hence we may say of matter "in the beginning." If matter has all been made out of the same stuff [nothing] it would be uniform in texture, and if it has always existed it must have been originally all alike. "Equality is Equity," and so we predicate of the primordial atoms,—"They were all alike." When we say "in the beginning" we do not mean to say that there ever was a beginning, so called, but we mean by that expression, time as far back as the mind can grasp or think,—the "beginning" of our comprehension.

Therefore we say: Primordial atoms were uniform in shape, size, substance, texture, and quality.

Sec. 8.—**Size no Criterion.** In the ocean we see an enormous fish,—the whale. In an aquarium we see a goldfish. The brain of the whale is a million times greater than that of the goldfish, and yet the capacity and intelligence of the two are equal, as far as we can see; with the odds, if any, in favor of the goldfish. In a drop of vinegar the microscope shows us a sportive little fish with a capacity and intelligence apparently equal to that of the goldfish or the whale. The drop of vinegar is his ocean, and we watch him with delight because his motions show a life of vigor and activity.

How many times man might repeat this descending analogy of life, if our microscopes were stronger, we do not know. Again,

the brain of an elephant is a million times larger than the brain of an ant; yet the latter far exceeds the former in knowledge and capacity. The ant knows a thousand times more; it builds cities; organizes armies; captures and works slaves, and provides for the future. If the ant were as large as the elephant the existence of man on the globe would be one of difficulty. Let us repeat the descending analogy: Is there anything a million times smaller than the ant that has a thousand times as much intelligence? Yes! Everlastingly YES! We will refer to this subject again.

Therefore we say: Size has no relation to intelligence.

SEC. 9.—**Atomic Motion.** If the earth revolves upon its axis, and also revolves around the sun, and the sun is also moving through space, then the earth has at least three distinct motions. An atom has many more than the sun. But to begin: each atom has the power of self-motion. It can whirl upon its axis when and as rapidly as it pleases; and why not? It is surrounded by vacuum, and there is no resistance. All space is not filled with atoms, as we shall see. It is as easy to whirl a million times a second as a hundred, if there is no resistance. The atom can go where it pleases. It could through vacuum wing a swift rectilineal flight for a million years. Motion is the mere product of will when there is no resistance. Being in San Francisco, suppose I wish to go to New York. If there were no resistance I would upon wishing it instantly arrive in New York. And why? Because there are only two steps to be taken: first, to will to go; second, to overcome the resistance. When I will to go to New York I have taken the first step, I have willed it; there being no resistance, no second step is necessary, and as soon as I have willed it I am in New York. The flight and

motion of an atom is a mere matter of will, and it can stop its motion as instantaneously as it originates it. Concerning resistance we will speak later.

Therefore we say: Atoms have self-inherent power to move or stop.

SEC. 10.—**All Nature Thinks.** In the atom is the beginning of thought. All nature thinks. To a greater or less degree all matter is intelligent. Animals think and reason; the vegetable world has knowledge and thought; the mineral world has less, but still it knows and thinks. The primordial atom started once with only mere consciousness. It could only say "I am." Ages afterward it could say to itself "I am immortal."

In a wonderful way, as we shall see, has this poor little feeble-minded atom worked out the first chapter of its destiny. It has learned to think; it has acquired intelligence; it knows and reasons. Intelligence is the power to know and think.

Therefore we say: All atoms are conscious. Again: All atoms may become in some degree intelligent.

SEC. 11.—**Atomic Resistance.** The atom has power upon its own volition to whirl itself with inconceivable velocity. It can begin and stop instantaneously. If it revolves a million times a second it can stop inside of its one revolution. It can wing an instantaneously rectilinear flight of greatest velocity and stop within the limit of its one diameter. It may be asked: How can it stop so soon?

The difficulty in stopping a substance in its rapid flight is the difficulty of overcoming the acquired momentum. In whirling rapidly the obstacle would be the same. The difficulty in obtaining a rapid initial velocity would be in overcoming the resident inertia. But what is "Momentum" and

what is "Inertia"? Momentum is the product of the weight multiplied by the velocity. But the atom (as we have seen, Sec. 5) has no weight, therefore can have no momentum. So, if two atoms should collide the destructive characteristic of "momentum" would be wanting. Suppose that two cannon-balls should meet in mid-air, and suppose that each of them weighted absolutely nothing: what would happen? Each would lose its velocity and stay there. Again, Inertia is an exhibition of the gregarious faculty or habit of the atom. The atom, as long as it desires association and seeks it and has it, displays the quality which we call Inertia. But as soon as it changes its wish, and desires freedom and un-association, the characteristic of Inertia becomes immediately wanting; the atom then no longer has Inertia. The moment that momentum and inertia are paralyzed, then atomic motion is such as the atom wishes it to be; and resistance, from those sources, has disappeared. Atomic motion may meet resistance through the obstruction caused by the confederacy of other atoms, but not from the causes mentioned.

Therefore we say: Atomic motion is not hampered by the existence of either inertia or momentum.

SEC. 12.—**Space and Vacuum.** Space extends everywhere and is eternally infinite. But matter is not theoretically infinite, because if the number of atoms were infinite they would of necessity be in such number as to fill infinite space. If all space were filled with atoms they would be like sand in a box, or apples in a barrel, packed together so that they could not move. On the contrary, atoms have great mobility; they occupy only a small part of space; their gregariousness brings them together in groups. This leaves vast portions of empty

space subject to constant invasion; but, until so invaded, enduring as vacuum. As the atoms are round and hard there is an area of vacuum smaller or larger around, or in contact, so to speak, with each atom. While the atoms in existence, as to number, could not be called "infinite," because they do not fill the entire infinitude of space, yet as they are beyond all human comprehension, and in contemplation of mind are infinite in number, we will say that they are, for all purposes of thought and discussion, infinite in number and diffusion. Compressibility indicates vacuum; the air is full of it. The corpuscles of the air are large, coarse, flexible filigree structures, through each of which an atom can go like a bee through an arbor of honeysuckles. Throughout all the realms of space a vast vacuum exists which, at all times, like a great ocean, is in contact with all atoms. Every substance is saturated with vacuum; it pervades everything, except the interior of the atom.

Therefore we say: Vacuum is contiguous to every atom.

Sec. 13.—**Attraction.** The gregarious feeling which atoms have, comes from their many and varied experiences. Endowed at first with only consciousness, the atom, by its multifarious experiences, develops likes and dislikes. With its happenings come experience, with the experience comes knowledge, with the knowledge comes intelligence. As the atom grows intelligent it acquires in an ascending scale an expanding potency, and an intensive impulse. Ultimately this humble atom may become the Ego-atom of a man; afterwards higher still.

Returning to our subject: we find the atom, as stated, developing likes and dislikes; the mechanical names for which are "attraction" and "repulsion." As size is no criterion of intelligence (Sec. 8), these minute atoms have acquired eager

friendships and bitter hatreds. This is indicated in some of the so-called "chemical affinities." There is such a thing between separated atoms as a pull or a push; that is, there is a desire on the part of one atom to go to meet another, or to shun and avoid another. If *both* atoms desire it they will meet; if they do not wish to meet they will not meet. When they meet they may wish to remain together. Atoms may be unsocial to each other, and refuse, like oil and water, to unite; the friendship of some atoms to each other is only rivaled by their hatred to others. These habits have by long experience and repetition become fixed and constant.

Therefore we say: Attraction and repulsion, among atoms, are habits of thought and action.

SEC. 14.—**The Gift of Direction.** If separated from each other, in the vast distances of the universe, two magnets, unknown to each other, were placed, they would immediately, if no obstacles were encountered, proceed toward each other. No matter what the distance might be, nor how feeble the attraction, *if there were no resistance* they would immediately proceed to hunt for each other and with accelerated velocity unite. If a pigeon being carried far from home in a dark box be released it will describe a circle, until it gets the direction, and then will fly straightway home. Other animals, also insects and fishes, have the same gift of direction; but the gift is more directly applicable to the atom than to any combination of atoms.

Attraction is a habit, and it exists in a greater or less degree in the individual atom, according to its experience. Atoms may unite from any distance, *but the pull must be reciprocal.* A sailor by pulling on a rope may move his boat in the direction of the rope; but if the rope is not fastened he can make no prog-

ress with the boat. Therefore atoms seek each other by *mutual* desire and inclination. This mutual inclination develops the pull, and the pull gives the knowledge of the direction. But the inclination must be mutual or there will be no pull. Hence two atoms that wish to find each other can always do so, no matter where they may be situated, or how far apart. Their unitation, then, only depends upon the obstacles to be overcome in the path between them.

Therefore we say: Atoms have the gift of direction.

Sec. 15.—**Resultant Motion.** Two or three or more, or many more, atoms may stand motionless by each other, side by side; or spinning with equal velocity may, by contact at the poles, resemble a string of whirling beads. Or two of them may constitute a di-atom and whirl around each other; or three or more may whirl together on a plane. Or forty, or four million, of them may form a coalescence of motion, weaving in and out. There is no limit to the eccentric and concentric motions which these atoms may acquire or assume. Floating in vacuum, with power of motion at will, they may adopt any form of simple or complex effort, and may weave out any form of lace-like motion. Atoms of the same habits will organize in the same way. Resultant motions go from the simple to the complex. There is no limit to the complexity of organization and of habit. These habits may, as a growth of experience and of intelligence, change. The original atomic motions were only two, the rectilineal and the whirl. Both could be used at the same time. From these, by combination, a vast number of resultant motions have originated, both complicated and intricate. These com-

binations denote an evolution of intelligence through experience.

Therefore we say: Resultant motion denotes progress.

SEC. 16.—**Recapitulation.** The phrase, "Primordial Atom," as herein used, denotes the atom which existed back "in the beginning"; that is, at the earliest time which mind can contemplate. Whether it existed before that time is unknowable and unthinkable. But "in the beginning" it was as follows: The Primordial Atom was infinitely small, and infinitely hard. It was round, indivisible, eternal, and indestructible. It had neither color nor weight. It manifested neither inertia nor momentum. All atoms were uniform in shape, size, substance, texture, and quality. Each was in some degree conscious, and capable of becoming intelligent. Each was surrounded by vacuum, greater or less in extent. Each had originally two separate motions, rotary and rectilinear. Each had a self-inherent power to move or stop. Each had the gift of direction. Each had the power of combination, and of the development of forms of associated motion. Each was capable of forming likes and dislikes, and developing the faculty of attraction and of repulsion.

We shall hereafter see what great events and achievements came from these humble conditions. They came through combination. There supervened three original fundamental combinations; and from these three all others have been formed. These were:

1. The ION; then afterwards,
2. The MOLECULE, or else
3. The CORPUSCLE.

SEC. 17.—**The Ion.** Atoms in course of time undergo va-

rious experiences, acquire various likes and dislikes, and develop various forms of habit. Atoms of similar likes, habits and motions come together and organize little families which are the units of organization. These are called IONS. Although each Ion is made up of similars, yet one Ion may be totally dissimilar from another Ion. Each Ion is, as to itself, homogeneous. Though many of the Ions are alike, each to each, Ions are divided into a vast number of genera. Each genus is composed of similar Ions which have each separately and individually organized with atoms identically similar, and with similar atomic motion.

To illustrate, suppose, upon a lawn, we attempt to arrange or pile cannon-balls: we can lay them in a line, we can form triangles, squares, and hexagons; we can form various kinds of pyramids, all of which will be regular in form. We cannot add motion to these, and as to motion our illustration is faulty. The Ions have not only all regular arrangements of shape, but all regular varieties of atomic interlocking motion, each Ion being a family and a formation to itself apart.

The Ion as such has an ionic motion. Suppose that an Ion had a motion around a circle one-eighth of an inch in diameter, and that it had a velocity equal to that of the earth around the sun. The orbital velocity would be so great that the Ion would form a ring and we could handle it as a ring; and if such orbits, as to several Ions, were made interlocking, the Ions would hold together as a chain. We have made the orbit, for illustration, one-eighth, inch for the purpose of making it tangible to thought; as a fact the orbit would be many hundred thousand times smaller.

The atoms in the Ion may be one diameter, or a hundred or a

thousand diameters, from one another,—each surrounded by vacuum, but by its interlocking motion adhering to the Ion.

Sec. 18.—**The Molecule.** The molecule is a combination of *similar* ions. The ion is, as stated, a family composed of similar atoms; they are combined as to numbers and motion, according to the special habits of the individual atoms. There may be combined in the Ion few or many—ten or a million—just as the custom and habits of the atom and the family warrant. Quite in the same way these families coalesce into race-communities; these are the molecules. These molecules are, as to one another, divided into genera, because each molecule must be composed of similar ions; hence, as ions vary, so the molecule varies. A vast number of molecules may be just alike; another vast number may be quite different from the former but among themselves be just alike. The molecule is the constituent of what is known in chemistry as the "Element." The "elements" are metals and metalloids, and may be represented by gold, iron, sulphur, iodine, oxygen, etc., etc. These fundamental elements are each undecomposable into anything but one pure form of matter. Their interior formation in a faint way may be illustrated as follows: Suppose we pile up a triangular pyramid composed of ten balls, it would be three balls on each side and three balls high. These floating in space and having an interlocking motion would compose an entity, or a family, and we would call it an "ion." If twenty of these were placed point to point they would compose a figure nearly round, a dodecahedron. These latter could unite, the same as the balls in the first place did, and by succession of unitation they would arrive at any desired bulk. Suppose again that we pile the balls into a four-square pyramid: this takes thirty; here

we have an ion of a different shape. If we take six of these and unite them at the apex of each we have a cube. These cubes can unite and form larger cubes, and so on, *ad infinitum*. All of these substances are held together by their interlocking motion. As these substances, the ions, unite and reunite by accretion, this interlocking motion is adjusted and re-adjusted. Between similar molecules there is a family affinity—a molecular attraction, which gives rise and opportunity to the interlocking motion.

Sec. 19.—**The Corpuscle.** The Corpuscle is a coalition of *dissimilar* ions, wherein it differs from the molecule, which is a coalition of *similar* ions. Great variety comes from the union of dissimilar ions. Corpuscles themselves exist in genera; that is to say, certain forms of ions unite readily with other certain forms and make a special corpuscular genus. This can be easily understood if we imagine the great number of forms which ions assume. Ions may be flat and form flat triangles, squares, stars, or any other *regular* flat shape; they may form lines, crosses, or rings; they may form pyramids, cylinders, or cubes. In short, there are very many *regular* shapes which the ion may assume, so that the corpuscle, by permutation, may also assume a still greater variety. However, by no means can any one ion unite with all other ions; on the contrary, each variety can unite with only a few of the other varieties. Sometimes three or four may thus unite together. Only those can unite which can rearrange their interlocking motions at the points of contact. If by reason of different and contra-symmetric arrangement such interlocking motions cannot be arranged, then there can be no union or adherence. This union is easily arranged between ions of the same family, but is generally im-

possible between dissimilar families. There can be no union of ions, unless, where their facets or sides come together, there is organized and established an interlocking atomic motion; and when corpuscles coalesce there must be established this interlocking orbital movement. The corpuscle, although formed from different families, follows the habits and customs of its genus, acquired through great periods of time.

Sec. 20.—**Atomic Chiefs.** There can be no union without thought. Things insensate cannot combine. Atoms do not combine by accident. Thought is incorporatedin to every effort. In every ion there is one atom more intelligent than the rest, who by reason of such intelligence assumes control. When ions combine into molecules or corpuscles the union takes place only through the efforts of the atomic chiefs. These chiefs fight among themselves like fowls in a barn-yard, until the question of superiority is settled. The question of dominancy being established, the combination assumes permanency. In all such organisms there must be a paramount atom, and, in the process of ascertainment as to who it shall be, ions are ground up, enslaved, banished, or persuaded. Indeed, in the formation of a corpuscle, the prevailing atom may disband his entourage and form a new ion, from his subordinate chiefs, or from his most potent tribesmen, and hold this new ion together, in the corpuscle, as a body-guard and council. As corpuscles are composed of different families, some of them may be said to be held in the organization through fear, some are cajoled to remain, others, feeling themselves to be of patrician type, may desire to have around them those whom they command and those over whom they may swagger. All this may be easily understood when we think that each of these atoms has had ages and ages of expe-

rience, has through endurance and distress acquired more or less intelligence, and is feeling more or less the impulse of an insatiate ambition. With the leadership of the ion begins the lust for rule, which, as we shall see, is never lost.

Sec. 21.—**Minerals.** Minerals are living things. They are composed of the metals or of the metalloids in various proportions and combinations. Each crystal is built up through ages of atomic and ionic experiment and habit. Each mineral has its separate angle of crystallization; it always crystallizes upon the angle of its clan. Minerals sometimes hybridize, then they crystallize upon the clan-forms *combined*. Why do minerals from all parts of the world follow a prevailing family type? Simply this: the ion is a type; the molecule or the corpuscle assumes a clan-shape from the shape of the ions. It dates back before the earth was begun. The molecules or the corpuscles combine and the clan-shape is continued and preserved. To the control of every combination comes a dominant chief. These combinations are made and re-made, are formed, destroyed and re-formed. Experienced rulers are always at hand to build a growing empire whenever an opportunity to begin is presented. From anarchy comes empire.

Look at the snowflakes—they are always six-cornered; why do not some of them form octagons; why, at times, are not some of them five-pointed? Simply this: the clan-shape is hexagonal, they have been organized in this way for ages, their leaders know no other form of tactics, the soldiers know no other drill; it is their habit and custom, like that of the Chinese to wear pigtails. From observation we know that the corpuscles of water are three-cornered; we see plants growing from it built

on the order of three, from the humble water lily to the giant palm; we see it in the snowflake and the ice.

SEC. 22.—**Vegetable Life.** Upon the granite rock adhere the moss, the lichen, and the cactus; they are the humblest missionaries of their race. They coax, persuade and tear the atoms from their long and cheerless vocation, or servitude, and lead them up toward a higher form of existence. All vegetable life has thought, intelligence, and ambition. All vegetable life is corpuscular. Here ions and corpuscles are formed and reformed. Here their chiefs learn better how to organize. Here the atoms are fired with a new ambition. Each plant has its sole and separate chief. The adamantine granite crumbles beneath the arguments and the efforts of these humble evangelists. When the moss, the lichen and the cactus have lived their lives, the atoms and the ions fall to the soil ready to be enlisted or conscripted by the aspen and the pine. These atoms and these ions are ignorant but ambitious; they are recruits; they are at first only hewers of wood and drawers of water. They cannot without great experience and observation ever expect to be able to organize and build so complicated a structure as a pine tree or a lily. And yet each particular plant, simple or complex, from the mildew to the redwood, is organized and carried through, from birth to death, by a single, intelligent, industrious, painstaking, experienced atom. He has his couriers and his aides-de-camp, going hither and thither. He has his engineers and brigades tunneling the ground and bringing in recruits. He has his organizers directing the movements of the veterans and of the reinforcements, projecting buds, making leaves, constructing flowers, and producing fruits. These things are not done by accident. They are not miracles. They are done by those who

know how; who have done it before and who are to do it again. What is it? Our ancestors called it "instinct"; they were right; "instinct" is intelligence, which our ancestors did not fully understand, but which they knew existed. The long and exact continuity of the phenomenon shows that it is neither accidental nor miraculous.

SEC. 23.—**Illustration, a Walnut Tree.** Upon the granite gravel, torn from the ledge above it, fell a lifeless cactus. The cactus-chief and some of his ambitious atoms were then recruited by the threadlike roots of a gigantic pine. Hurried, with throngs of others, along the roadways, as in a mine, they reached the bottom of the shaft. Here were headquarters; here they were inspected, allotted and assigned. In course of years the cactus-chief showed great proficiency. Once a bolt of lightning separated him from the tree and hurled him to the ground, but he knew how to get back speedily through the roots. He in time understood fully the structure, mechanism, habits and customs of the pine. He was finally detailed as a staff officer, and impressed his chief so much that the latter detailed him to command a colony. He had learned his trade and was ready to graduate. Gathering around himself a brigade of friendly, intelligent and subordinate corpuscles, he organized a pine-nut, bade adieu to his pine home, and started out upon a career of his own. But a beast stepped upon the pine-nut and a flooding stream carried it afar, mangled and incapable, where it lay disorganizing upon alluvial soil a thousand miles from home, mid strange and alien races. The pine-chief had many invitations to enlist, but rejected all. He was in grievous mind until a call from a black-walnut commissioner invited the chief and what was left of his colony into a black-walnut organization.

They went with apprehension and misgivings. But the cactus-chief, who had become a pine-chief, had had much experience; he had become a ruler—not a born ruler of atoms, but a ruler—and he diligently set about to learn the walnut business and to make himself and his influence felt. Right well did he succeed; he became an accomplished walnut-builder. When as a colonist he had built a walnut tree, he started out and built another, and he gloried in the long line of his accomplishments. When a venture failed, as to a colony, he knew how to get back; and for over three thousand years he did nothing but build walnut trees, and he taught millions of others. How he came to quit will be told further on.

Sec. 24.—**Animal Life.—The Lime Atom.** Upon a hillside a tuft of bluegrass recruited an atom of lime. Long had it been a limestone atom weary for promotion. It had come from the sun in a ray of light, for light is a substance containing all the elements: falling upon the wave it caused a sparkle as it sank. A polyp took it up and built it kindly into a coral reef, which in brief, inactive centuries rose slowly and became the framework of a continent. The bluegrass tuft was sending up a spire, and needed the atom to strengthen the cylinder. The little plant was an accomplished architect, and had the traditional experience of a hundred millenniums. And so the little lime atom became, for an era, a grass atom. Being earnest and ambitious, it had experience thereafter in various grasses whose governments were quite alike,—rye, millet, wheat, maize. Blown away one day by a tornado, it was left where the recruiting officer of an apple tree induced it to join. In after times it had learned to build apple trees. It always clung to its little ionic family and preserved the lime family traditions. The atom

was now a leader. Once his tree was burned and he was among the ashes, a simple little lime-ion, but he was soon again in business building apple trees, and again, with the experience of a leader, gathering and organizing the millions around him. One day, as an apple seed, he started out with a colony, but a hungry bird came and devoured him. Here was a new world, a new experience, and he entered into it with zest and pleasure. Most of his corpuscular comrades were finally rejected, but he was retained. "A lime atom with experience," said the recruiting officer, "just what we want; get your ion into line here; take charge of this squad of lime recruits." Then a corporal showed him the way, and marched him off and embarked him in an artery with directions. Said the corporal on parting, "We are building our bones more hollow than formerly, so as to make more storage room for *photographs*. It is the only place we can put them to advantage. Memory is constantly taking them and sending them to us for storage, and we have to file them away where they can be had on call. Want of order makes much trouble in that department."

Sec. 25.—**Leadership.** Each grade of existence, generally speaking, feeds upon the most developed of the grade below, but the walnut cannot grow among the granite gravel with the pine; wheat cannot grow with the cactus. Trees are universities where atoms are further educated. Each such university must enlist such atoms as have had the rudimentary education which fits them for the curriculum of the tree. There is constant education rising from the lower to the higher life. Progress comes up gradually from the crystal. Every atom, with more or less intensity, is, so to speak, hunting a job. Experience in one sphere of work fits the atom and the ion for employ-

ment and success in another. Thrown back from time to time, the atom still, in the long run, makes constant progress. Aptitude in one direction develops aptitude in another. Progress may at times be checked, ambitions retarded, and hopes deferred; but the impetus will be regained and progress will push ahead with redoubled speed and zeal. The atom learns the "know-how"; although thrown back, it can plan and accomplish its own reinstatements; retarded in one place, it can rise to equal heights in another. This is because experience brings power, power and experience develop leadership, and everywhere, from the crystal to the archangel, leadership is recognized. It is not alone among men that leadership is potent and will win; the atom, the ion, the molecule and the corpuscle all equally seek, demand and employ it. When once acquired, the faculty of leadership remains; and although clouded, perhaps, by temporary disaster, or inoperative by reason of adverse conditions, it, from its latent lodging, comes forward unevoked like the crocus in the spring.

Sec. 26.—**The Upward Current.** In the ascending scale the motto is always the selection of the best. The plant selects the best, the animal selects the best, man selects the best; so, there is a constantly ascending scale. Upon a prairie there is growing a luxuriant crop of grass; the pioneer with his breaking-plow turns it under and sows wheat. The yield is prolific; and why? Because the wheat plant finds ready for enlistment myriads of educated grass atoms that can do good work in wheat; because grass and wheat are built alike. Plant a tree there, and it languishes. Trees need tree atoms; but in time an orchard will educate its own atoms. When the wheat crops have, in the course of years, exhausted the educated atoms which were

originally found, the crops will then languish like the tree, and the ground must be fertilized, that is, supplied with educated atoms. Scientific agriculture is based upon the theory of the education and use of atoms. The earliest vegetables are those which show the most progressive energy; the largest are those which show most comprehensive leadership; and man, for food, instinctively prefers them both. So there is ever an upward current, rising higher and higher, with a more ample scope and a more brilliant future. In one sense it is all evolution, in another it is aspiration and development; whether we call it evolution, aspiration, or development, it is all intellectual, and it comes from the storing-up and use of experience. All this upward progress is from the experience of the individual; all evolution is from internal origin; it is from the below and the within. No plant can make a crystal, no beast can make a plant, no man can make a crystal, a plant or a beast; no God can make a man. So, from within and below, the current is ever upward. Inspiration and aspiration.

Sec. 27.—**Disintegration.** Each family of plants has its era of growth, magnificence, and ruin. Conditions change and plants exterminate each other. Like men, they have their likes and dislikes, and one family drives another from the earth. The cedar of Lebanon is now besieged in its Syrian stronghold to which it has retreated: it will soon capitulate; it is surrounded and cannot escape. In the groves the maple pushes the elm to one side, and the box-elder pushes the sycamore. If trees were not securely fastened down they would fight each other more fiercely than men. As it is the tree-clans drive each other singly and by forests. The fishes, the birds and the animals drive each other. All nature is in a war of competition, and in

this great rivalry, when the armies of one are destroyed, its race-atoms, like janizaries, enter into the service of another and keep the discord fervent. The destruction of a race of plants or animals brings about a disintegration of the entire organism down to the very ion. When a tree is burned in the furnace, its leaders are gone; there are left but a few inert minerals called ashes, and these are ready then to respond quickly and enlist in any new form of life. The leaders, invisible to us, singly and with ions, seek new employment; and with a friendly group, if perchance they may find it. But back again to work they go, like a wandering Æneas, to build up elsewhere the fortunes they have lost. Hence it is that molecules and corpuscles, families and clans, are crumbling and re-forming, combining and re-combining, ever and ever and ever. And out of it all comes an experience, a progress, and an uplift.

Sec. 28.—**Invention.** A willow-atom after long experience was enlisted by an oak. In course of time, having the faculty of leadership, the atom became a member of the staff and chief of the executive committee. There were many other willow-atoms in the organization. "I have an idea," said the willow-atom; "let me select a colony and go forth." The oak-atom said, "You may go." It went forth and made a "willow-leafed oak." Experience is grafted on experience, and strange forms result. Intelligence is modified by intelligence, struggles are parried by events, efforts go oblique. Where these happen, differentiation begins. In one sense all plant life is hybrid. When an atom has had experience in two different forms of plant life, suggestions come to it as to a third. When an atom has had long experience in one form, suggestions for improvement receive attention. Hence there is constant change and improve-

ment, and alongside of it constant change and failure. There is no evolution except the evolution of intelligence, and it is only a differentiation by invention. It comes from within the thing invented. It is not a creation; it is a new combination. The Centaur was a weak invention, and our Greek ancestors assisted in its extermination and claimed all of the glory. The dragon was a dangerous invention, and our ancestor St. George fought it nobly. The Chinese, after its extermination, used it as an emblem on account of its native ferocity. Through myth and tradition many forms are brought down to us that once existed, but which are now as extinct as the pterodactyl. Although new and strange forms are constantly being invented, few of them survive. The six-legged calf and the two-headed sheep are instances.

Man has come up through a steady line of invention from the atom; through a steady line of accretionary development. Side-shoots have sprung out all along the line, but they have been mostly failures. The monkey is one of them, the pigmy is another,—both failures.

Sec. 29.—**Animals—Bad and Good.** Wild animals have such dispositions as their constituent atoms prescribe and permit. These dispositions change, and new traits appear, under domestication. The turkey becomes much less vain than in his wild state, the dog becomes more faithful, and the cat more affectionate. But there are some animals, and living things, that are not worth taming, and would be of no value if tamed. The hornet, the snake, the hawk, the wolf, the shark,—each of these is a combination of bad atoms, and should be destroyed. It is the duty of the human race to exterminate these bad combinations. They are aggregations of cruelty, selfishness, and

ferocity. These atoms can, so to speak, be mustered out. They can be thrown back, disorganized and compelled to start anew. Life is a competition in destruction. A good man is the best animal yet created on earth, and his period of duration thereon is governed by his ability to slay, in self-defense, his unworthy competitors. They all need another and a better start. From bad atoms come the germs of fierce diseases attacking man; from bad atoms develop cruel forms of intermediate life, such as the cobra, the tiger, and the kite. Let them all be sent back; let them all be reëducated. With better associations, and with more experience, they will come up again, improved.

Those vices which flourish by sufferance are the nurseries of barbarism. Civilization and progress mean war; and the war must be continuous. Not more continuous, however, than the victory. Extermination of vicious combinations must proceed up the line from the bacillus to the bandit. Progress will have a potent force to help it forward, in this, that barbarism hates barbarism, the wolf eats the wounded wolf, the killer kills the killer, and the robber loves to rob the robber.

Sec. 30.—**The Man.** The microscopic origin of the man is the spermatozo-oid; we can trace it as, increasing from six to twelve billion times in growth, it ultimately becomes a man; yet the primordial atom by accretion, association and organization had increased from six to twelve billion times to become such a spermatozo-oid. The atom is infinitely small; man is only half-way up the ladder. As the crystal is but a selected community of educated and fraternal atoms, so a plant is a selection from experienced crystals. The plant is an alembic, and its fruit and seeds are merely distillates. The lower beasts take up and re-distill the plant product. Each plant and ani-

mal is a bundle of its inferiors; in other words, the best army which its chief can recruit. A sheep is a by-product of the distillation of nearly every element in the universe. Man eats the sheep and it is re-distilled. Man is a still higher product and is himself re-distilled. Above him go a thousand grades of successive distillation. In the vast retort, of what is called nature, the process of continual selection, by which intelligence and leadership may, after segregation, combine and rise, has been of very long duration. There is much for us to aspire to. Far down in the scale of real efficiency and excellency is vain, self-conceited man; to those above him he belongs to the crustacea. He lives on the bottom of the ocean of the atmosphere. Yet he deserves no sneer, and he will receive from us herein much deserved attention.

Each man is a separate proposition; each is differently organized; each has tendencies one way or another; and each has a different aptitude. And it is so because each has selected atoms of different history, education, and experience. One has many atoms of the vulture, the serpent, and the wolf; the other of the ox, the lion, and the albatross. Everything is woven in a similar loom, but all the patterns are different. No two men can be alike any more than two regiments in the United States army might be recruited from men of similar names.

Sec. 31.—**The Ego-Atom.** Each man is an empire, at the head of which is a constitutional monarch. This empire has billions of subjects, all under considerable control. The emperor, the Ego-atom, has had abundant test; he has been in places of subordination and of command; he has held almost every office, and knows how to rule. He has organized crystals, he has builded grass and shrubs and trees; he has occupied all

official situations from corporal to general. While dominant in bluegrass he has been eaten, as master of an oak he has been felled. He has lived with beasts and birds and fishes. He has been thrown down hard a thousand times; his experience in leadership covers a million years. From one of his former reigns his face may show that his latest dominant existence was that of a lion or a sheep; yet, nevertheless, he has had a long subordinate apprenticeship in man. His human empire in infancy was small, but enlargement soon began, and he followed his latest teachings and traditions, modified, to some extent, by the experience gained during his most protracted ascendency in some lower form. Thus we see in human face and fashion many of the animals and birds with which we are familiar.

We have observed trout trying to surmount a waterfall; how the strong succeed and how the weaker try and try, and fail and fail; but after time through growth and effort they too succeed. It is so with man in reaching higher levels. At all times the atom is in command until the empire is destroyed, or the emperor driven from his throne. This Ego-atom is ourselves. Each of us is it. Each of us is but an atom, a single atom. And this same atom was originally hard and round and indestructible, and had consciousness and motion and the gift of direction. It has now acquired much intelligence, the power and habit of leadership, an increased ambition, and is going forward at a swift rate to a glorious and logical future.

Sec. 32.—**The Man-Empire.** All political empires have their periods of growth, prosperity, and decay. It is so with the atom-empire which we call "man." All empires decline in the same manner: first, the legislative branch becomes weak or corrupt; then, the judiciary system becomes feeble and the sense

of right and wrong becomes relaxed; then, the executive department breaks down, and the empire is lost. The man-empire is a vast empire in numbers; and, as in a political empire, in it there must be patriotism, honesty, conciliation, and what is known as public virtue. The two great forces of a nation are its soldiers and its students. The first resists invasion and insurrection and is protective,—the latter invents, discovers, and reveals; it is progressive. The enemies of political society are greed, disordered ambition, senseless vanity, cruelty, mendacity, and idleness. These vices have the same effect upon the empire below as they have on the empire above. The little empire suffers exactly as the great empire. One is an empire of atoms and the other an empire of empires. A nation suffers from the same vices as those from which a state would suffer, a state suffers from the same vices as those from which a city would suffer; the man suffers the same as a city, the corpuscle the same as the man. The same rule holds good from top to bottom, from angel to atom.

In the atom-empire of man, as in the higher empire of men, the administration, to be the best, must be lofty, and just, and pure, and firm; not rapacious, not vain-glorious, not cruel. In the little empire the faults and vices of administration can be no more hidden than in the larger. In the little empire, as in the greater, follies of administration work the same results,—dissatisfaction, emigration, and insurrection; its soldiers desert, its students depart, then comes anarchy followed by destruction, which we call "death." The only way for the little atom-empire to succeed is that it cause confidence, respect, patriotism and decency to prevail.

Sec. 33.—**Food.** A toad eats a wasp; a serpent swallows

the toad; a wild hog devours the serpent. This happens time and time again in the order of varied circumstance. The wild hog becomes an assembly of pernicious atoms. A hunter in pursuit of game slays the wild hog and bears it home in triumph to be eaten. The hunter by his food receives some strange accessions—the wasp-atom, the toad-atom, the snake-atom, the wild-hog-atom. They have not yet learned the language, as will be hereinafter explained, and hence the hunter himself suffers but little, but his children will pay a thousand penalties. The evil that men do lives after them; the wasp, the toad, the snake, the wild swine may appear in the disposition of children and of children's children.

Progress can only be reached through purity of food and purity in life. The purity of the parent rescues the child. Moses understood this, and distinguished between the clean and the unclean. From the farm, where the food is composed of domesticated grains, and meat grown therefrom, must come the cultivated vigor that shall reinforce the civilization which grows decadent in the city. Every human being is the product of its parents' food. There is salvation in purity of thought and life. It has taken man millions of years to get up where he is. Therefore eat the best meats, the best fruits, the best grains, the best of everything; but let it all be civilized, domesticated, and of pure origin. Do not shun meats; vegetarianism is a mistake; but do shun barbarism, shun "game," shun wildness. The sudden millionaire, who has not become acclimated to wealth, begins to be an epicure, new foods from all corners of the earth are his; he eats strange victuals; chefs concoct him strange dishes from far-off lands; he acquires a liking for "game," gamey meats and exotic viands. He does not suffer—not very

much—but his children pay the penalty; he and the world wonder whence their dispositions and their worthlessness. The children of the farm take their places. Blessed are the pure in stomach, for their children shall see the fruition of hope.

SEC. 34.—**The Soul.** The Ego-atom is related to the corporeal man, just the same as the emperor is to the empire. The emperor is not the governing power, but is the chairman of the committee which does govern. He alone could not control the empire; he must have a staff, a council, an army. In man the Ego-atom is the chairman of the soul. He has around him a council magnificent in numbers, organization, and experience. He has brigades of aides-de-camp, couriers, orderlies, messengers. He has judges and advisers. He has an army. He has a legislature which debates, discusses, and decides. This vast entourage manages for the most part the internal affairs of the empire. Its danger point is that of external contact. This is the principal sphere of duty of the Ego-atom; he deals with the outside world. He is his own secretary of foreign affairs. When he deals with internal conditions it is only as they are brought specifically to his attention. The legislature, although constantly undergoing somewhat of a change, is nevertheless almost continually in session. Some of these deliberations we call "unconscious cerebration," when the Ego-atom is absent or busy. These deliberations govern internal affairs, and at times make recommendation to the emperor as to foreign affairs. The same with the judiciary. The constituency of these assemblies are not wholly of the emperor's choosing, although he can much influence their selection; he can refuse to listen to them; can and does disobey their mandates, and may disregard their advice. He has independence and predominating power, but he

is supreme only in rank; he cannot control the thought or decisions of the subordinate departments. Therefore there is a sort of a triality in man—the thinking, the doing, and the judging. But the Ego-atom is paramount in rule, has the veto power, and can destroy the organization at any time, as is occasionally done, by so-called "suicide." He and his entourage constitute the "Soul."

Sec. 35.—**The Mind.** As has been stated, the Ego-atom has around him administrative, legislative and judicial forces; they constitute his cabinet and are ready at his call. In contact with outside matters many serious questions arise, questions of right, expedience, and duty. Many of these are submitted to the cabinet. The Ego-atom listens to the discussion; this is called "meditation." When the discussion is masterful, about evenly divided and prolonged, and the Ego-atom is alternately convinced, this is "vacillation." When a strong consensus condemns an act as *unjust* or a certain proposed procedure as *wrong*, this is "conscience." When the Ego-atom with vanity and self-assertion overrules his council, vetoes their legislative resolution, and in defiant mood acts in contravention thereto, then he is lashed by his parliament in hot debate and around him a mob shouts excoriating protests. All of this is kept up in proportion to the gravity of the offense, and is called "remorse." From this retributory ordeal, if the protests are long continued, there is but one escape,—either abdication or flight; *i. e.*, insanity or death.

Happy the man who convokes his council often and listens to its debates; O Man, convene thy Soul and give heed.

Sometimes the council is so neglected that it resigns in disgust, sometimes affronted it quits, sometimes it is dispersed and

the Ego-atom acts selfishly and alone. The man is then said to have no soul. He becomes vicious, a foe to decency and a curse to his race. Sometimes he determines to reorganize his council and change his manner of administration; this is called "conversion." This council and these powers, paramount and subordinate; these bodies, functions and tribunals, these efforts and these actions—all combined, are called, in one comprehensive term, "The Mind." In our language we have no word to designate the distinction between the process and the product, and so we call both "Mind."

Sec. 36.—**The Nerves.** Man is built something like a whisk-broom: the straws all run up into the top. From the brain down and through every part of the body run highways, through and over which, as over Roman roads, couriers and armies may be sent. From the metropolis in the brain, messengers can be sent to any portion of the body, inside or out. The outside is a net-work of minute and innumerable pores; yet, at every opening there are sentinels to forbid the entrance of objectionable visitors, and carry an immediate notice to headquarters. These messengers are extremely rapid and numerous, and know where to go to deliver their messages. Some deliver them to one staff officer and some to another. The staff officers condense the news and, if important, advise the Ego-atom. These nerves are cylindrical, in pairs alongside of each other, so as to allow travel in opposite directions. In other words, the whole system is double-tracked. These cylinders are so small that they are filled with vacuum. That is, they are so small that the corpuscles of the air or water cannot get into them, any more than a cannon-ball could go into a flute. These highways, being kept free from intrusion and impediments, afford a line of travel

in vacuo that is speedful. These nerve-lines have fine terminal facilities, side-tracks, switches and spurs, at all necessary places. They also have complicated connections at junction points, called ganglions, where messengers can go around a piece of road that is out of order. Various portions of the lines are constantly suffering damage, and gangs of "trouble-men" are constantly repairing at points where trouble exists. Restorations are constantly being made by building through or around an obstacle. Division superintendents are at the ganglions, and the general managers and the chiefs of the operating departments are at headquarters in the brain.

SEC. 37.—**Language.** The inhabitants of China speak one language, those of Africa another, those of America still another; but the Coolie and the Negro can be brought forcibly or otherwise to America and be immediately put at profitable employment. They may not be able to speak the language of America, but soon they pick up enough words, sign language and information to enable them to do their work well and understand their duties. So with man and his constituent atoms. As each man is an empire, so also *in each empire there is a different dialect.* Each immigrant is shorn of much power by being unable to speak the language on his arrival. Food is made up of immigrants. Some pick up the language quicker than others. Interpreters are plenty—every immigrant in this great cosmopolitan empire finds some one with whom he can communicate. In youth, the great formative period of the man-empire, the problem is to fix and settle the language, laws and social system of the empire. This is accomplished at or about "maturity," and before that time great numbers fail, because they are unable to perfect a working organization.

As various atoms have, respectively, various ranges of experience, so, therefore, do these atoms range from the dull and stupid to the wise and clever. But there can be no combinations between them unless they have some method of communication. If all the general methods of signs, words and acts may in the aggregate be defined as "talk," then we may say that all associating of atoms is brought about by "talk." Unless atoms talk there could be no crystals, no plants, no animals. Without talk there could be no functional activity in any form of life. A tree could not grow, a snowflake could not form, unless some one atom could tell some other atom where to go and what to do. Unless the atoms which form a tree could act together with a common intent to carry out a common purpose, those atoms would be as incapable as a pile of sand. The more perfect the internal language the more preëminent the organization. Oratory has its true effect whether within or without the crystal, within or without the man.

Sec. 38.—**Sensation.** We see those things only which we know we see; we hear those things only which we know we hear. Sensation applies to the things of which, and only to the things of which, we take cognizance. In the atom-empire of the man, as in the greater empire of men, information from the outside is carried to governmental headquarters by messengers and is there classified and considered. A brass-band is playing in the park, and we far off are listening. The process of comprehension is complicated; the vibrations of the air reach our ears; the fact of these commotions, by instantaneous and consecutive messengers, are carried to the headquarters of the brain, and there receive attention from the aides-de-camp and general staff. The result is reported to the Ego-atom. The sensations of touch

and smell, of hearing and seeing, are all communicated and registered alike. As, in a temporal empire of the world, communications from the outside come in the form of reports and advices, so in the atom-empire do they come. But the organization of the atom-empire is much the more perfect. There is a vast difference between men—that is, between the atom-empires we call man—between one and another, as to the ease and accuracy with which each receives and comprehends sensations.

No two men are similarly organized. No two can act, or be, the same. As no two states have the same laws; as no two states have the same internal political organization, so no two men can have the same faculties or capability. Hence sensations, of different men, differ in volume and effect. But the machinery, the mechanism of transfer, must necessarily be about the same. Sensations are conveyed over the highways of the nerves by messengers vast in number, rapid in movement and continuous in service. The waste is enormous; hence we tire in traveling and seeing sights, and need time (sleep) in which to reorganize. The man at headquarters, the Ego-atom, tireless and alert, receives and considers the official reports of his subordinates, and makes up his mind as to the outside facts. Then and only until then has he experienced "sensation."

Sec. 39.—**Ideas.** While traveling a street a circumstance perhaps occurs which fills our mind with pleasant and amusing thoughts. From us these thoughts stream out in little cloud-like masses on the air. They are substance, and represent the destruction of tissue; small indeed in volume but representing millions of atoms. Another person comes along, and breathing in these atoms is acted on by them. Thought is infectious, and those who are not immune are smitten by it. The rose exhales

a fragrance; we breathe it in with exquisite surprise. Much more would we be pleased could we but understand the rose's language. Men exhale thoughts, as roses do perfume. Each is a dissipation of substance. The substance is the messenger of the thought; without the substance there could be no communication of thought; without the thought the substance would be motionless and sterile. And so it is that ideas are practically substance. They are sublimated substance; they arise and are thrown off as the product of the interaction of atom on atom brought together by combination, selection, affinity, and family ties. A gallon of water or a bushel of coal cannot, as such, evolve an idea; they must join some organization. And all organizations have ideas, using the word as synonymous with thought. And all through the air are floating thoughts, fancies and ideas, readable, conceivable, comprehensible to those alone who understand the languages of the substances which convey them. And, as in wireless telegraphy, the receiver who takes the message must be attuned to take it; the listener must know the code. So it is that ideas originate; they sweep communities with resistless force, and disappear we know not why or whither. They lie dormant perhaps for ages, and rise again to please or vex mankind. Men and communities catch ideas in manner not unlike the way in which they catch a plague. Men, animals, trees, crystals are evolving thought,—everything is thinking; much of it we take in, but unfortunately we assimilate or understand but little.

Sec. 40.—**Health.** There is due from a general to his army the highest purpose and the most unwearied attention. He can inspire the army with confidence and hope; can bring it up to an increasing efficiency, or can ruin it by neglect and bad

example. It is so with the Ego-atom: he must be active, honest and firm with himself; he must enforce discipline and good order; he must always maintain cordial relations with his soul. By unremitting cleanliness he must free himself from the scamps, thieves and camp-followers which gather and hang constantly around his army. He must study his men and find out what they can do, and what they like; what is harmful and what is best. He must not strain their friendship by dissipation and excess; or their loyalty by overwork or neglect. Few are the secrets that the Ego-atom can keep from his soul or his soldiers. If an insurrection arises he must in positive language command it to stop; if danger from without is threatened he must give timely warning. A man may walk unharmed through contagion if he is all on guard. An Ego-atom may march his army unscathed through the pestilence that rages at noonday, provided he has in advance informed his troops and put them on the alert. Shoulder to shoulder they will resist an invader and repulse an attack. But there must not be disloyalty in the ranks or mutineers at headquarters to help the foe. That is, the Ego-atom must not be at variance with his army or his soul. Health is a matter of mind and government. When health is lost the Ego-atom can, with the help of the soul, do much to restore it. When driven to necessity the dangerful expedient of outside help (medicine) may be employed. In our Civil War, at time of greatest danger we freed and armed the blacks,—that was medicine. It is best, however, to let the troops fight out their own battles, enforce their own discipline, and win their own victories; they thereby learn the art of war, the habit of self-government, and acquire the confidence of success.

Sec. 41.—**Disease.** During every day that an army marches

there are a number of mischievous happenings; there are a certain number of fights among the men, a certain number of desertions and deaths, some of the wagons collapse, a piece of artillery gets a broken axle, some soldiers are promoted, some officers reduced, somebody gets mutinous, some are sent to the hospital. So, every day, with man: he is a vast army engaged in a constant march and almost continuous battle. Abhorrent forces are always at work; spies, enemies and insurgents are always within the lines; ambitious mutineers, clever malcontents and insidious foes are ever present. Every man carries at all times within himself the seeds of every disease. The policemen of the blood are on constant duty to overcome and expel these dangerous and intriguing adversaries. The army must go into camp (sleep) from time to time for no other purpose than to reorganize and re-form. Hence overwork leaves man a prey to many diseases. Rest and mental determination will cure most of them. The mind by its own inherent processes sets the forces at work that will overcome most ailments. Sometimes the assaults of enemies within are so vigorous that instead of fighting a long, doubtful and exhausting contest it is better to call to our aid and employ, outside assistance. By employing janizaries who will go directly to the spot and help the weary legions who are fighting, we sometimes win a speedy victory. But these janizaries are dangerous, sometimes they (the medicines) will not fight (act), sometimes they plunder their allies and must be overpowered and expelled. When mutineers arise and depose the general, and discord prevails and the government is overthrown, then a condition arises that in men is called "insanity." Pain is simply grief that arises from bad news which is brought by the messengers from the invaded or insurrectionary districts,

It can be stopped only by preventing the travel of the messengers on the road,—by obstructing the nerves and decreasing the information on which the grief is based. This remedy is called anesthetic. Of death as the result of disease we will speak hereinafter (Sec. 45).

Sec. 42.—**Action.** We watch a baseball player and see him throwing, catching, and striking; we are amazed at the intelligent rapidity with which he acts; let us analyze his movements. From the brain, the center of thought and direction, his hands are distant about two feet and a half, by the nearest traveled route. Every movement consists of five factors. *First,* the brain must mature thoughts for the carrying out of the certain combined act and purpose. *Second,* the brain must send messengers to the various members of the complex organization, communicating to each the special thought, when matured, and commanding its execution. *Third,* the recipient of the message must understand the language in which the message is couched, and comprehend its purpose and scope. *Fourth,* the recipient must proceed to carry out the mandate of the message with such speed as is required. *Fifth,* all must message back, as rapidly as possible, their various acts done in compliance with the messages. These return messages may also be corroborated from the eye and ear. By constant practice all of these processes become more complete; the thought becomes more definite and prompt; the messengers become acquainted with their routes; they acquire a better use of the imperial vernacular; they know more certainly where the local headquarters are situated; they become acquainted with their superior officers and convey the verbal messages more certainly; by experience the recipients of the messages interpret them, and construe them, more accurately;

and report back with more promptness and efficiency. After a while the subordinate headquarters know so well what is expected that they can go ahead and act almost automatically. All of this thought, message, interpretation, action and report must be originated, sent and acted on by intelligent, fraternal, talking, thinking, understanding atoms. There is in this as in war a great waste of atoms. All action of the human body is the counterpart of war. All action is wasteful and brings about hunger, that is, a demand for recruits and reinforcement. Human existence is continual exertion within, and war without, requiring at all times force and generalship.

Sec. 43.—**Messengers.** The laws of the United States may be found in a hundred places in England; the laws of England may be found around the world. And so it is with thoughts, or rather with the messengers of thought,—they are found outside of the place of their birth and outside of the jurisdiction of the thinker. And this brings up to us the answer of the question, "Where do ideas come from?" If thought is not a substance,—if separated from its messenger service it is a mere abstraction, then we must deal with the messenger. Thus the messenger embodies the thought, and we may safely treat the messenger as the thought; and, as the messenger is a substance, we may, for the purpose of handling the thought, treat it as a substance.

Where, therefore, do ideas come from? We may say in reply: They are messengers, they are everywhere; we breathe them in, we gather them in. Like birds of passage, or like errant zephyrs, they singly, or in multitudes, forever come and go. Thoughts are constantly originated and the messengers are constantly dispatched; they are pushed, they are speeded.

Some go where they are sent, some arrive at their destination, others wander, ramble, straggle, desert. They come to us from planet and star. They interchange from soul to soul. They may be sent telepathically. We give them as a rabble little heed; we do not understand their languages, we cannot interpret the purport of their messages, except that now and then one of them is couched in a dialect which we dimly comprehend. Nevertheless there are those who seem gifted with strange wisdom and perception and who catch the hidden meaning of messages, the existence of which to others is unknown. These men are geniuses. Yet all of us have the faculty to some extent of interpreting some of these messages; hence often there are simultaneous inventions, and thoughts, in places far removed; and messages between distant kindred and separated souls.

Sec. 44.—**Memory.** Memory is a phenomenon of combination; it pertains but very little to the individual atom. Memory is the retention of sensations which have been experienced; that is to say, a retention of the media by which facts have been communicated. A state government has a bureau of records where are deposited the archives of the state; these archives compose the official history of the state. The power to go into these archives and find at will what is wanted would constitute memory on the part of the state. If the records were so broken, scattered or confused that sought-for documents could not be found, then official memory would be gone. The messages which to the Ego-atom come from ear and eye and touch are, like photographs and like phonograph records, filed away when they have been considered. It is a wonderful process, not easily explainable, how all these various forms of message and report are reduced to a common form by the able and experienced staff

at headquarters, prepared, assorted, arranged and preserved. Each living man has a bureau of records in which the archives of his life are stored. The finest organization that can be dreamed of is man. There is nothing around him to compare in method, scope or fine adjustment, with what is found within. But all records are not kept alike, and, as they are all perishable, most of them are lost. National records are lost by war, pestilence, and time; personal records are lost by disease, bad habits, and dissolution. The utility of all records depends upon the ability to find immediately what is wanted. Within the man the perfection of the organization is of the most importance. Some men can call up instantly and accurately all important facts of which they have been aware, while others grope laboriously through fragments and disorder. It may be likened to a library, properly or improperly classified and managed by a good or bad librarian. At last comes the invasion of disease and the Alexandrine library is no more. Memory pertains to the atom but in smallest degree. It is principally the phenomenon of combination. Memory as such exists only in contemplation; like thought, it is an abstraction, but *memories*, that is to say, the definite remembrances of the things remembered, they are substances.

Sec. 45.—**Death.** As any other empire perishes, so perishes the atomic empire of the man. When the Huns and Vandals of disease invade it, or cataclysms or internal disorders overwhelm it, it ceases to exist, as any other empire ceases. When the end of order and dominion has come, the Ego-atom summons his staff, his aides-de-camp, his counsel and his courts, his guards and sentinels, the officers of his armies, and those entrusted with participation in government; then, fleeing from

the distracted empire, it and its records are consigned to fate. Like Hannibal with his staff they seek a foreign land and another opportunity. That is to say, the Ego-atom and his soul go forth to do again and perhaps in a better way what they have done before. If this now roving atom, with its soul, were visible, it would have the seeming of a sparkling mist of the exact outlines of the former body which it had vacated, each atom in its accustomed place of duty, nothing lacking in detail of outline or form; each sentinel at his post, every corporal with his guard. All of this million-atomed outline is movable and flexible; it can contract and condense itself into a single spark of most infinitesimal weight. A weight subject to its will. It can then reassume its former shape, because each atom knows its place and where and how to go. The balance of the human body, the rank and file, that which gives it weight, falls a prey to anarchy; thousands of leaders arise, enlist recruits and aspire to dominance; those as worms fight and prey upon each other until at last a general flight begins. The fugitives seeking new situations start life anew, elsewhere, with the lessons they have learned. All of the official records of the empire are left to destruction; it is well they are. Of what use are they except to embarrass the future?

Sec. 46.—**Sleep.** Did you ever see a legislative body conduct itself when its speaker had vacated the chair? The jokes, the stories, the mock proceedings, the revelry? It illustrates sleep. The Ego-atom is gone, and those who are present tell strange stories of what has been, or might be. Among the membership at headquarters are actors and mimics, historians and novelists, warriors and cowards. Some of them tell blood-curdling tales of the past; some recount fictitious stories of the present; and

some make impossible prophecies of the future. These are unofficial and are not recorded; sometimes the Ego-atom suddenly returns, and without taking the chair, listens briefly to what transpires. Some of it may fix his attention. Some of it as he takes the chair he may cause to be put on record, and preserved. Sometimes messages come to the adjourned house and are delivered, when, if they came during the session, they would not have been received, or would have been neglected. When the Ego-atom is not at headquarters he is visiting the provinces of his empire. He is inspecting his army, looking after supplies, and defenses. He is stationing his sentinels and visiting the outposts. He is instructing his subordinates and superintending repairs. There is very much for him to do. There are spies and enemies without and within. If he should stay at headquarters, and not look after the hourly needs of his empire, it would go to confusion and ruin in a few days. He is the man who must attend to it; it is his empire, and he alone must do the work and keep down insubordination and the constant drift toward anarchy and disorder. When he is absent the carnival at headquarters begins; we call it dreaming.

Sec. 47.—**Ghosts.** When the Ego-atom leaves the body, attended by its soul, the whole, if it could be seen, would resemble in some respect what is called a "ghost," and we will call it such. No sane man ever saw one. Insane persons occasionally see them. We have shown in Sec. 45 how the soul-atom with its entourage leaves the body after death; how it can assume the shape of the departed, or concentrate itself into a point. The ghost cannot talk, because it has not the machinery to put the air in motion, but it can see. It may immediately, upon its release, begin to hunt a new home, to acquire a new command

and seek again the delights of leadership and rule. It may oftentimes do much better, as we shall see. If of a low character it most generally tries to enter some empire already formed, tries to overthrow its ruler and take the short course of a bandit toward acquiring sovereignty. It generally fails. We see this after the battlefield and plague have unhoused many hapless souls. In their eagerness and haste some of them—the worst of them—make attacks right and left; we say, "It is the deadly typhus." Finally, worn out and torn to pieces by their rivals and opponents, and shorn of their adherents and staff, they take humbler places, and seek to rise by slower and more gracious methods. They must be born again.

But the ghost of fiction and romance—he does not exist; he does not walk by the moonlight, he does not talk, revealing dark and damning secrets; he has no secrets. Every one is armed against a ghost. Each soul is within a citadel with an army to repel an invader; and having almost every advantage of numbers and situation, can easily win. But if the invaded territory is governed by a vicious chief, corrupt in thought and habit, with no discipline or ideals, the army of defense will be undisciplined, the officers will partake of the character of the chief, and the battle will be, instead of an easy victory, the ruin and downfall of both. There are "ghosts," but not the ghosts of fable, and are unseen of men; there are also "spirits"—messengers from the bright and distant stars—these are entirely different; they are occasionally seen of men; we will speak of them elsewhere.

SEC. 48.—**Angels.** The Ego-atom, and its entourage which we call the "soul," finally disencumbered from the mass of crude material called "body," goes on with its immortal history and

development, as it has ever done. Upon distant stars in distant constellations higher and higher grades of existence are attained; and from time to time messengers are sent from there to here, just as England sends her ships to the distant islands of the sea. It is, as we shall hereinafter observe, one vast domain over which one atom, which has achieved supremacy, is ruling. So long as we hereafter, in distant constellations, are in subordinate places, so long are we liable to be sent on errands of duty and concern to the island spheres, the earth among the number, which comprise the imperial domain.

These messengers have from time to time been seen of men. They were seen by Socrates, and Christ, and Saint Cecilia, and by Joan of Arc. They have been seen by thousands in the past; they have been seen by the living. They will be seen oftener and oftener in the future.

Sec. 49.—**Future Memory.** As said before,—*memory is a phenomenon of combination.* How much of memory remains to man—to the Ego-atom of man—after dissolution? Obviously but very little. The records are gone; there remains not much except the residuum of experience. Why should we in our upward flight be burdened with the weight of old memories. All lives are disappointments, but none of them are failures. I do not remember when I was a monad; I do not remember my sufferings as a trilobite; nor my death at Pharsalia. What my existence was before my present form I do not care to investigate. It was all disappointment, and I am glad that it has been forgotten. And the present arrangement is the proper one: how can there be progress upward if we are encumbered with a past? We must fly light if we would fly far. Our course is upward—rapidly upward—and as we do not now care to remember

when we were mollusks at the bottom of an ocean, so the time will come when we will not care to remember when we were unhappy beings at the bottom of an atmosphere.

It has been said that death with loss of memory is extinction; and that another life without memory of the present is not immortality. In a barren sense that is true; but when the soul-atom knows that it is immortal, and that it will live on and ever on, that one fact is all which, for the present, it need know or remember. The destruction of the archives of memory is no loss to the power and mental strength of the Ego-atom. Although an athlete after long and continuous exercise, by which he acquired great strength, should forget all the circumstances and processes by which it was acquired, yet he would hold it unimpaired. So the soul, although it might forget the facts and experiences by which great mental power and aptitude were acquired, would still retain its acquirements. It would lose its ladder but would keep its rise. We may not remember our mother, but we have had a million mothers. Which one shall we idolize,—only the last?

Sec. 50.—**The Scheme of Probabilities.** In order that man may advance and hold his ground by force of his own power and experience, he must have no personal help from above. He may get help from above, but it is general to the race or species; he gets, and should get, no individual help. He must work his way up the mountain, step by step. There is no rope let down to draw him up; there is no push from below,—he must do all the work himself. But, each one must have a fair chance; each one must have an equal opportunity. If individual help came from above it would be selective, partial and unfair, therefore the fight below is on the merits; each one for himself. What

then happens? Energy and zeal must be reinforced by good-fortune. A thousand spores float in the air, only six catch. A thousand seeds fall to the ground, only a few put forth. Of a million eggs spawned in the river, but a few survive. A thousand ambitious men in a state wish to go as delegates at large to a presidential convention, only four are chosen. In the matter of reproduction the existence of sex is taken advantage of as an agency in bringing about fair results. The female may be compared to a garden, and the male to the gardener who selects what is to be planted. The ambitious atoms are selected by the male; he sends them forth to take their chances. The fittest are selected, the luckiest survive. The female makes no selection, but she furnished the opportunities for those selected. She takes care of the luckiest. Each one has his chance; every one an opportunity. The atoms throw their own dice and the parents take care of the winner. This is "The scheme of probabilities," which is not only necessary but comes about naturally. It is the only fair one. If there is only one promotion to a thousand candidates, let them settle it among themselves. Let those defeated try again.

SEC. 51.—**Sex.** Sex indicates a habit of thought. The idea of sex embraces two principles, progress and conservatism. These are antithetical, are found in all nations, found in all nature. In an atom-nation, as in a world-nation, there are found two parties. They may be called Democrat or Republican, Whig or Tory, but they are elementally the same,—they are male and female. In numerical strength they are about even. Sex is a sort of division of labor both mental and physical. One pushes ahead and brings in, the other is cautious, protective, and conservative. They are both necessary to "The Scheme of

Probabilities" of which we have spoken (Sec. 50). Therefore sex is a habit of thought; and, while it does not inhere as a quality in the individual atom, it early characterizes the *combination* into which the atom enters. That is to say—atoms are not male and female in the beginning as primordial atoms, but by experience, as they combine and re-combine, as they become Ego-atoms in various associations and undergo various trials and tests, they, by virtue of what has happened, take on the *mental configuration* of sex. They become endowed with such habit of thought as stamps them as belonging to one sex or the other. Thus mentally fashioned they go on from era to era, carrying with them their experiences and modes of thought into a thousand lives as they struggle up and up to higher and nobler planes. This difference of thought marks out two classes of atomic combination. That it is availed of in propagation and increase is *wholly disconnected and secondary.* And so it is that there is sex in crystals, in plants, in snowflakes, in every living, breathing thing. And so it is that one sex loves the other, and enjoys the society of the other, for the bold loves the gentle and the prudent; and the conservative loves the strenuous and the brave. When the two unite they combine all that is. They are each the hemisphere of some globe, greater or less in size.

Sec. 52.—**Persistency of Sex.** Wifehood and maternity do not end with earth. The duality of sex continues upward and onward forever. If it should cease, advancement would cease. We could not reef up and secure progress as it was being slowly and painfully acquired, and we could not perpetuate it, unless the classification of sex were continued. It would be useless to develop man from the crystal, or the plant, if, upon disintegration, he must revert to the beginning. But if, when on arrival

to the upper class, he can perpetuate the class, then, upon it as a foundation, a higher class may be developed. And so it is, class upon class is builded, to a height and extent of which mind can but dimly conceive. And this does not end with man, and is not confined to earthly things, but, growing in importance, it becomes the rule of higher life, universe without end. And so it is that we may justly pray to "our father and mother who are in heaven." And so it is that class after class of superior beings, rising ever so high, by the power of reproduction, grasp and retain the progress and the benedictions of the past. There are those who are born as minor gods and goddesses, and they have those above them to whom they may look with adoration and hope. And to all this condition of things we men and women of the world may turn our thoughts, with ambitious longings for achievement, knowing that glorious futures are before us, and that the long and rocky road which we have already traveled is the most wearisome portion of the journey.

Hence it is that we have the million mothers as we rise and rise. May have the same beloved spouse, or mother, world after world. The father may have the same sons; and the family, although it does not know it, may pull itself together like magnets in the universe. And at some distant time by message through the wireless ether may utter each to each, "Where have you been so long?"

Sec. 53.—**Sex-Atoms.** The idea of sex comes to man through so many ages of experience that he feels familiar to it. He would not care to exchange his sex. All persons are satisfied with their sex, no matter how dissatisfied with their individual lots. The sex of any certain, particular human being is the sex of the Ego-atom of such being. Of the billion of atoms associated with

that Ego-atom and forming that human being, only a majority need be of the same sex. For instance, a man may be 51 per cent male and 49 per cent female. Were he all male atoms he would be unbalanced. If his majority were female atoms he would become effeminate. Majorities change in atom-nations as in others. By this change of majorities, brought about by accident or force, bold men become pusillanimous, cowards become bold, and women become daring. A man is what his atoms make him. It is not altogether beyond his power to select his atoms. The best formula for man or woman is a good working majority of atoms of the proper sex. A majority that can be relied upon at all times to sustain the administration. The Ego-atom must have those of his own way of thinking to depend on, and they are those from whom the legislatures of the brain are chosen. And so from the crystal and the seaweed, hand in hand, the sexes come up together, associated in the co-educational experiences of the universe. There are many grades higher up than man, and hand in hand the sexes will together go, and there will be children born in the grades above us whose dower and birthright will be too splendid for us as yet to consider or conceive. There we, who are most fortunate, will soonest arrive; and others through pain and anguish and experience of woe will, as laggards, ultimately arrive. But they will arrive able, ambitious, and equipped for what there is to come.

Sec. 54.—**Matter and Thought.** We are led by the foregoing up to this:

The original, primordial atom had consciousness and a capacity to think. To possess both loves and hates it must have had the power of thinking. If atoms have the power to com-

bine, and to adhere to the combination, they must have the faculty of imagining, of determining, of believing. These mental powers become by combination stronger and stronger with experience and practice; and so it is that atoms think, and when combined become parts of thoughts. In this one sense the atom is a substance, and in another it is a portion of a thought. As the atom and the thought cannot be disassociated, one is the practical synonym of the other. Therefore electricity is thought, and light is thought, and every organized thing is thought. A rock, a tree, a world, a universe is a thought. And in the same sense all substance is thought and all thought is substance.

While it may not be true that "Flowers are the thoughts of angels whereby they write on hill and dale mysterious truths," nevertheless flowers are thoughts; and every organized substance has thought as its organic basis. There can be no organization without thought, and the substance embodies the thought. Some thoughts are good and some are bad. Nevertheless, there may be atoms that as yet are without experience, who have a feebly developed consciousness and are as yet practically inert; they cannot form combinations and are hardly yet to be classed, except potentially, as thought. They are the laggards, but they in time, in the great eternity of time, will become proficient. God is the greatest of all combinations of substance and thought. But He is outside, and by Himself, separate from the great volume of substance and thought, and all substance and thought is not God, nor is God a combination of the whole. He is simply Himself. We will treat of this further in Sec. 72.

Sec. 55.—**Telepathy.** Light, as stated, is a substance which is molecularly small; electricity is a substance which is smaller; thought is a substance which may be still smaller. We can pro-

ject light afar; we can project electricity to places more difficult and remote. We may send messages by light signals to great distances, if some one is there skilled in receiving them. We may send wireless electrical messages to greater distances, if some one is there skilled in receiving them. We may send thought messages still farther, if some one is there skilled in receiving them. To receive a thought message the recipient must be, so to speak, attuned to receive it. The time will come when the human family will largely communiciate by silent thought. The time will come when human thought will, so to speak, become visible. The murderer's thought will warn his intended victim, and the mother may talk with her children in distant lands. The thought, the substance, will go where it is sent. It will bring about communion between the spheres. In realms above us this has long been true.

If, after dissolution, which on earth we call death, a disembodied soul-atom wishes to see a wife or child or friend who has gone before, what may happen? This, perhaps: As the power of motion is inherent (Sec. 9) and the power of direction persistent (Sec. 14), then, as soon as both parties wish to meet, no matter where they may be located, they may approach each other with incredible speed. No matter what the distance or direction, if they wish to meet, they immediately move toward each other and by a mental pull speedily unite.

In the first case, telepathy, messengers are sent; in the second the atom goes itself. But in the higher life telepathy is most wondrously developed; and messages are sent from constellation to constellation. Many such messages reach the earth, but few of all have the intelligence or capacity to apprehend and understand them.

Sec. 56.—**The Telepathic Gift.** As thought is a substance, and as in man its movement and control reside in the Ego-atom, it is possible for one person to throw a thought into another. This can be done silently, and even secretly, as well as openly. If done silently and secretly, the receiver, as in wireless telegraphy, must be in tune and must be present to take the message; *he must be willing to receive it;* the sounding-board and the operator must both be present. If the receiver himself is awake, then the operator is present, and it is only further then needed that the machine should be in tune. Both rarely happen. The third requisite, coincident, is that the message be sent when both of said conditions exist. Spoken words uttered at the right time to persons in the right condition, as we all well know, are very powerful. Silent messages may be made equally powerful.

There are some persons who are naturally receptive; who are in tune during frequent periods and who can receive thoughts and ideas from a distance and from silent potential thinkers. The former persons are by nature, or by training, telepathic; and can receive thought impressions from anywhere; from any distant city, from any distant world, from any distant constellation. The only question with the thought, as with a cannon, is, "How far will it carry; will it carry far enough to reach the mark?"

As thought is a substance, the act of talking is the sending of a message from one person to another, the sending of a message from one atom-nation to another; it is the sending of a special embassy from one empire to another. Thus it is that dying children sometimes, from a distance, announce their deaths to mothers; thus it is that in silence, at times, minds

are read; thus it is that we get ideas we know not from where; thus it is that at times we feel a sunshine which we cannot see. Most of us are too coarse. Most of us have recruited our atom-nations from too low a race; most of us are too rudely organized; most of us do not live the lives which will attract the best volunteers to our service. Hence the Telepathic gift is rare, but by proper living it may be acquired, and in the distant future it will be born in men like hearing. The thoughts and minds of all people at some future time may be like an open book, to be read by those who will.

SEC. 57.—**Emotions.** In the same manner that thought is a substance, even so are emotions substances. Even as grasses, in almost incredible variations, abound, so do emotions. As insects differ, even so do emotions. Revenge is a substance, hate is a substance, and so are anger and pride. Each differs from each, and, in greater or lesser numbers, they form portions of the population of the atom-nation called "Man." Love, Hope and Loyalty, these are also substances, and form to a greater or less extent the population of the atomic nation. These substances are all emigrants; are all migratory. What in the line of progress and improvement should the nation do? Obviously the immigration of the best should be encouraged and the ports closed against the bad. Again, the best should be befriended and the bad exiled. There should be no room for vanity, hatred, and revenge; there should be promotion for fidelity, tenderness, and hope.

It can be accomplished in this way: *First,* A pure man must live on pure food, on domesticated food in lieu of wild food. He must live on the best food attainable; the best is as yet none too good. As we emerge from barbarism the quality will grow

better and better. *Second*, No power, promotion or control should be given to the worst element; there must be no outbursts of passion; the man must not give way to vanity, hatred, or revenge. When long ignored and given no hand in public affairs, these baser beings go where they can get support, authority, and recognition. They exile themselves; if not exiled they undergo a vital improvement by mere contact with a strong majority capable of controlling them and holding them in order.

Hence it is important to feed right and think right; and right thinking is as important as right living. Not that it so very greatly benefits the individual who does the living and thinking, but that his children and his children's children, for all time, feel it. A man who feeds on broiled lobsters and champagne leaves a frightful heritage to his children. So, the emotions may be allured as immigrants, favored as friends, or banished as foes.

Sec. 58.—**Force.** There can be no force except as some substance is moved. If a horse runs, of its own accord or by reason of a mental impulse, force is developed, just the same as is developed by the firing of a cannon; it is only a difference between original and communicated motion. As atoms have original motion they can in combination develop aggregated motion. As they have intelligence they can originate collective motion. Corpuscles have and do acquire habitual motion. The lower the intelligence the more iron-clad and inexorable becomes the rule of the acquired, habitual motion. There is nothing more adamantine than ignorance.

The forces of light, heat and electricity are original, but are so fixed within narrow lines by vast eons of exercise and a low

intelligence that their phenomena are relied upon as "constants." Just as we know that roses will bloom in June and that salmon will leave the deep ocean and, at a certain time, swim as far as possible up a fresh-water river; these also are constants.

We also have reason to know that electricity is composed of various sizes and forms of corpuscles; so that Electricity may be divided into various kinds and families with various habits and powers. And so is heat. We have already stated that light is a compound of many substances. So from the finest variety of electricity to the coarsest variety of heat, there is a gamut of self-originating compound force. And each note in the ascending scale is represented by a corpuscle different in size, texture, habits, purposes, and intelligence. These form a great variety of "rays." But we poor mortals are obliged to classify them, after a fashion, as if we said, of living things, "these are beasts, these are birds, these are fishes." The motions of each of them, or of either of them, constitute a "force," but it is not a "blind force,"—there is no such thing as "blind force"; all force has intelligence behind it, weak or stolid though it be.

SEC. 59.—**Light.** Light is a compound substance. It is composed of corpuscles. From the sun it comes to us in the nature of a bombardment. All shapes and sizes are represented. Hydrogen, iron, uranium, all come as light with vast velocity but with little momentum. Some of these projectiles are as bird-shot compared to others, which range up to the size as of cannon balls. Mixed up and mingled together, without order or method, they come in a constant stream, big and little, to our earth from the sun and stars. When they strike a prism they are sifted and

sorted out; this we see in the spectrum and in Fraunhofer's lines. Gold, iron and other metals come to us even from the most distant stars. These corpuscles are exceedingly small, but are true to type and faithful to characteristics. They fill our soil with metals which with gregarious instinct gather into groups, or, entering into living combinations, are educated into higher forms. Every living thing welcomes the advent of these immigrants and thrives upon their industry and coöperation. They are so small that they penetrate the spacious structure of the air and pass through its texture like breezes through the open framework of a trellis. Although exceedingly minute, these corpuscles of light by vastness of numbers, and constant arrival, slowly build up the volume of the earth. The Earth is an island in the ocean of the universe; by its present facilities it gives promise of present advantage, and future progress, and has become an attraction to immigration. Light does not shine vaguely out and waste itself meaninglessly in empty space; it goes from sun to planet and from star to star. It leaves no source without a purpose, and seeks only an established destination. Emigration from Liverpool to America, although it may comprise all sizes, nationalities and tongues, still has a destination and does not go blindly across the Atlantic, contented to land on Labrador, the Bermudas, or Brazil. And so it is with light. It goes direct to an objective point. It does not venture out into nothingness.

Sec. 60.—**Heat.** The difficulty in the conception of light is that its particles are so wonderfully fine. The corpuscles of air and water are gigantic in comparison with it. Its fineness is such as almost to baffle contemplation, and yet there are substances still finer, and others in all grades of coarseness up to

visibility. Heat is a substance coarser than light. If a damp sponge be placed upon an anvil, and smitten with a sledge, traces of moisture may be perceived upon the face of the anvil. If the face of the anvil be itself smitten with the sledge we find a trace of heat. The heat and moisture both appear pursuant to the same common principle—the compression caused by the blow. Heat is coarser than light, but flows with it from the sun, the same as pulverized granite flows with the water in the Missouri river. Heat is everywhere. Water is but a lava flowing melted from a rock known as ice. Heat when quiet is a substance difficult to detect. It has strange, lethargic habits. Like a groundhog, when unearthed it immediately seeks another covert. We burn heat into the lime and slack it out again. It is nutritious, and we mix it with most of our foods. It is part of our living. Everything is filled with it, and abrasion releases it. It is latent and dormant, but may be quickly aroused by us if we know how. It exists in granite the same as in wood; some day we will stumble upon some substance that being introduced to granite will cause its disintegration and the release of its stored-up heat. Coming from the sun, great quantities of it are harbored in the air, together with light and other substances. The habits of heat are different from those of light. Light, heat, electricity and magnetism are each different substances, and although found together they have entirely different habits, as have insects, animals and birds found in the same forest. Heat is coarser, more docile, less ambitious, more languid than the others; hence its manners, habits and customs are entirely different from the others. It is often found with light and electricity, just as horses are often found with sheep and cattle.

Sec. 61.—**Fire.** If we should be walking over the prairie at

noonday, in summer, everything would be quiet and in a state of repose; but, as we proceeded through the high grass, from time to time we would be startled by the rising droves of prairie-chickens, anon by the boisterous whirr of flocks of startled quails. We would also see springing up here and there, from the waving grass, meadow-larks, swiftly retreating rabbits, and perhaps an occasional wolf. These all have their habits and their lairs. When crowded from one they seek another.

Light and heat are not very intellectual, not very wise, and not very gregarious, but the latter is more gregarious than the former; much more deliberative and much more combative. Corpuscles of heat are as different from those of light as a wolf in the forest is different from a whippoorwill. When the shelters within which heat and light have ensconced themselves are torn down rapidly, and the flight of the corpuscles of light and heat toward other asylums becomes visible, it is called "fire." When it becomes visible and we say that the fire has consumed something, we make an error; the structure within which heat and light were concealed has been broken up and made into something else, which affords less capacity for concealment; nothing has been destroyed: the house has simply been torn down and the tenants have moved into another. All condensation of substances produces this effect.

The sun has been shining upon the earth since the latter was as large as an apple; the earth has been slowly built up by accretion and has been saturated with heat. Under the operation of the faculty of gregariousness the substances of which the earth is composed slowly settle to the center denser and denser. The more gregarious substances will crowd out the less. Hence, heat will continue to be crowded out, and it will escape through

volcanoes and otherwise. The interior of the earth is not molten; quite the contrary. When heat is crowded out slowly we see no fire; this is constantly going on, as when wood is rotting or iron rusting.

SEC. 62.—**Electricity.** I once heard a soldier of the Civil War say that on the march to the rear of Vicksburg, "There were fleas, chiggers, seed-ticks and mosquitoes all working at once." Although these insects are each small, they differ from one another as a horse from an ox. The small and microscopic forms of life differ from one another as much as those which are larger. Electricity is composed of corpuscles smaller than those of light, and can go where light cannot, just as light can go where electricity cannot. They are as different as the flea and the mosquito. Light is scarcely gregarious, electricity is intensely so. It goes like a drove of sheep. It wants to go all together. It comes to us from the sun and the stars along with light and heat. The earth is saturated with it. As the coarser heat is crowded out, the finer substance, electricity, crowds in. The more gregarious takes the place of the less gregarious; hence heat is always flowing out and electricity always flowing in. The air as well as the earth is more or less saturated with each. The vast difference between them may be easily shown thus: Through plate-glass light goes swiftly, heat slowly, and electricity not at all; through plate-copper electricity goes swiftly, heat slowly, and light not at all.

In the formation of the human body vast numbers of these corpuscles are needed. They are constantly recruited, educated, and discharged. Man, as before stated, is something of a university. For duty as messengers and couriers, along the nerves, electricity-recruits are always and constantly necessary.

With light and heat the same. To a greater or less degree it is true, as to every crystal, tree or animal, that they are universities, and need constantly the service of skilled messengers.

SEC. 63.—**Thinking.** Man, an atom-nation, thinks in the same manner that any other nation thinks. A national thought, as distinguished from an individual thought, is expressed in two ways: one, is by a public law duly enacted; the other, is by public sentiment, openly asserted and believed to be based on law, written or unwritten. Both of these are the product of a combined national effort, and whether just or unjust, conceded or resisted, are known to all the nation, or, at least, to all who care to know. These national thoughts, expressed in positive written law or in manifest public sentiment, knowable to all the nation, profoundly affect the nation, and everything within the nation,—its policy, its internal administration, its existence, and its happiness. It is so with the atom-nation of man: his thoughts affect the atom-nation. Within the atom-nation these thoughts are public thoughts, and within the nation they are mighty factors. Thoughts that linger on malice, revenge, greed and cruelty bring about maladministration, corrupt government, and produce social discontent. Then the good and capable atoms emigrate, and hunt in other lands for better homes. The man, like the nation, must hold his people, must give them good thoughts (laws), must exercise a firm but kindly sway, must make his realm attractive.

The rules of nations are the same, big or little; whether an atom-nation such as man or an empire of men such as Rome,—the rule is the same; greatness results from rectitude, internal justice, and administrative propriety. These qualities attract genius, talent and capability from abroad and rob other empires

of their most potent and most valued forces. Hence it is that a man dull, slow and insipid can by proper thinking build himself up. While he cannot by taking thought add a cubit to his corporeal stature he can by taking proper thought add vastly to his social and intellectual stature. The Ego-atom can so govern his kingdom that he can make it, like the court of Dionysius, a place where lovers of science, art and philosophy may wish to congregate and dwell. Thus the Ego-atom by attracting to and around itself the best there is may constantly improve.

SEC. 64.—**Thought.** As stated hereinbefore, the process of thinking is analogous in man to the process of legislation in a State. A mind and a parliament act the same way. As a State cannot pass a law without its being known, so a man cannot think a thought without its being known within the jurisdiction of the thinker. The moment a man thinks the whole body knows it. A man cannot think without he knows he thinks. He cannot see unless he knows he sees. Parliament may debate, but if it comes to no conclusion then no national thought has been expressed, but when one is expressed the nation knows it; its promulgation immediately takes place through a messenger service already established and provided. The parliamentary process of enacting the law is one effort, the promulgation of the law is another. One is the act of a body of legislators, the other of a body of messengers. The law itself may be a mere abstraction; its promulgation is the work of many, very many.

In man the whole body thinks, also its parliament, drawn from the whole body, thinks. As soon as a thought is generated it is messaged. By these messengers the thought is promulgated. Every thought has its messengers. So, therefore, in the atom-empire, a thought, in one sense, is a substance. It is

a substance in this, that it would forever remain mute, invisible and unknown unless expressed by substance,—that is, unless promulgated by messengers. The atomic messengers of thought may be smaller than light and swifter than electricity. If a thing has no existence except through the mediumship of substance, then, though not a substance, we may safely treat it and handle it as a substance, because there is no other way to treat or handle it.

Sec. 65.—**Free Will.** To what extent in its upward course can the Ego-atom control its flight? Have we no free will? Do we all move in the direction of least resistance? Is our course framed by the net preponderance of force? Are we governed by everything and yet do we govern nothing? These questions and a thousand others like them and deducible from them are answered "Yes" by many, but by us they must be met with a confident and unyielding "No!"

On the upper Mississippi at Lake Pepin a log raft is launched; its destination New Orleans. Equipped with a steering-oar both in front and rear it starts upon its way. Behind it is the current of the river as an irresistible force, and the raft must be carefully steered to meet the exigencies of the tortuous channel. The shores are strewn with many wrecks, and there are but a few degrees of the compass which the pilot can control. A little to the right or a little to the left is his arc of option; but it is his arc of safety. The power which bears him on is a benefit and not an evil; and the arc of option is large enough to permit him to reach his destination.

Life is a question of steerage; if we let go of the oar-pole we will find our lives sooner or later wrecked. Far ahead of every soul-atom is the ever-distant goal; and down the vast river of

eternity we may confidently float, knowing that from whatever direction impelling winds may blow we have a power behind us, and always an arc of steerage, an arc of option, which, though very small, if properly made use of will take us where we wish to go. And we get there by making intelligent and selective use of preponderating forces.

SEC. 66.—**Prayer.** Those who are above us have lost the recollection of what transpired below, the same as we have lost the recollection of our former lives. It is well that it is so. It is well that our present courage is not chilled by the recollection of a thousand failures. We cannot remember when we were rocks and plants, birds and beasts, yet we know now by recent inquiry more about them than they know about themselves. The dog knows but little of himself, but we know much. So of those above us: they do not remember when they lived on earth, do not remember us, yet they know more about us than we know about ourselves. Do they listen to our prayers? Men and women for millenniums have prayed, and have believed, through all these years, that from time to time some of their prayers were answered. Not all are believed to have been answered, but so many have been answered that it is a concurrent belief of all races and all ages that prayers are at times answered. These prayers are directed to the sun, the moon, to wooden idols, to trees, to men who never existed, to imaginary women, to winds, to clouds, to streams, to things which have ceased to be animate and to substances which have never been animate. Prayers are but wishes, and all wishes are prayers, addressed to whom it may concern. Every fervent wish is a substance which hurtling through space may in its course, with telepathic force, strike some responsive wire. He who is fervent in prayer may get a

reply consistent with his fervor. The wish is all that is necessary; it does not need to be mailed to the proper address. The prayers are few that are answered or that should be answered. It is useless to pray against the established order of things. It is idle to besiege the Supreme Ruler to change general laws. It is idle to ask a suspension of the rules. An emperor cannot listen to the quarreling of ants. It is our duty to play our several parts in the current sequence of events, and not criticise the administration. So there are very few things to pray for. We will refer to this again.

Sec. 67.—**Answers to Prayer.** But as we play our parts from day to day there is, as has been shown, a certain freedom of will. We have no right to ask that things be done for us to the detriment of others. We have no right to ask for wealth, conquest, or power. We have no right to ask for help to obtain advantage over others, because we do not wish others helped to obtain advantages over us. We must achieve what we get; we must do it ourselves. This limits our right-of-prayer to very tiny boundaries.

Prayers are answered only when they pertain to our mental and spiritual wants and conditions. We may ask for spiritual and mental blessings. Those above us who cannot interfere with the established order can help us here. Here is where prayer has been undoubtedly answered. The records of the human race show that here are cases which can be proven. The human race is not so blind and dense as to have been wholly deceived so long as to this. It sees clearer from year to year. The crutches that hang up in the churches of Christendom, erroneously called the result of miracles, show that spiritual and mental help has been given to man in response, from time to

time, to his fervent mental wishes. Indeed, here is where help begins and ends.

As the mind controls the body, so assistance to the mind is assistance to the body. Therefore, when we pray, the prayer should be for mental and spiritual help and betterment. We may not get it, but it is the only kind we can get; and if we do get it we may be bettered and we may be cured. If the body has passed beyond the control of the mind, we may not be cured. The only response to our prayers must be into and through ourselves. It is something sent to us and into us like an ambassador, like a missionary to the heathen: it may do us some good and it may not. The miracle is the fact that the ambassador is sent, and not what he does when he has come. Water cannot be turned into wine; the Supreme Being cannot do that, but to every soul a messenger may be sent who can give advice and assistance in the puzzling details of its administration.

Sec. 68.—**Miracles.** There are no miracles; the Supreme Being cannot work one; He cannot turn water into wine. An emperor is not able to turn a regiment of infantry into a college of surgeons. He can disband the regiment and he can create a college of surgeons, but not from the same men. Atoms, being indestructible, cannot be transformed into anything else. Atoms gain their own knowledge and experience; when it is gained it cannot be taken away from them. In order to form wine, certain atoms must be assembled and organized; they must be atoms that have had grape-experience. This experience cannot be given to them by the mere direction or will of any outsider. The Supreme Being possesses vast power and wisdom, but He is an atom himself; around Him is his vast following, ready and willing to do His bidding; but, He cannot create an

atom, and He cannot by mere will give it any intrinsic endowment. Thus He himself has his limitations, and is bound by law, the law of existence, which, created by no mind, has enacted itself, and is fundamental,—having been wrought out in the struggle to go forward, in which movement the Supreme Being, as an atom, together with all other atoms, has participated. He rules, reigns and commands by virtue of his wisdom and experience; He cannot be deprived of that wisdom and experience; nor can the humblest atom be deprived of its wisdom and experience. Hence the law is inflexible as to all, and it cannot be disobeyed, even if an atom ever so powerful desired to disobey it. It cannot be broken, because it is absolutely infrangible. There may be laws that can be broken or suspended, but the one law of atomic existence,—it is steadfast, immutable and irrepealable.

Sec. 69.—**Civilization.** Civilization may be likened to a procession with a Transcendent Man at its head. Near the rear of the procession is the crystal, and back of it is the unaffiliated, lonesome, wild, solitary atom. Man in his highest estate requires the support of the highest beneath him. There must be civilized, cultivated animals, varied in species, habits and constituency, below him. Below these animals must be cultivated grasses and foods. Below these grasses must be soils prepared by tillage and fertilization. Then as an adjunct to the soil there must be the climate, without which, in a proper form, civilization cannot exist. So it is the duty of man, to himself, that he seek the best places and cause many better blades of grass to grow where only one grew before. It is his duty to make the blue-grass supplant the buffalo-grass; the Jersey cow, the elk; the sheep, the coyote. It is his duty to be constantly domesticating

wild animals, such as are worth it and have the proper tendency. It is his duty to exterminate such as lack value and disposition; they are unfortunate offshoots from the main line of progress and civilization. The world would be better off if there were no hawks, no tigers, no snakes, no alligators, no sharks; and a thousand others,—insects, birds, beasts, and reptiles. It is the duty of the kind, the humane and the gentle, paradoxical as it may seem, to destroy such other forms of life. And so, as we go, the fields may be fertilized with phosphates taken from the quarry and with the half-educated refuse from the stables; the soil may be asked to produce corn while we kill the weeds; the domestic animals may be asked to consume the corn and become the food of man. One product will be and become the distillate of the other; and man the highest result and development, so far, on earth. From the foregoing it will be seen that all repugnant forces and products must be combatted and smitten down. Civilization is the outcome of a fierce and unending battle; it is waged in self-defense. Hence it is that the food of man should have in it as little as possible of the wild, and his associations as little as possible of the evil.

Sec. 70.—**Evil.** There is always existent some large, minority-percentage of evil, not as much as believed, but still enough. There are some who think evil, plan evil and do evil. There are evil minerals, evil plants, evil animals, and evil men. These evil things result largely from ignorance; often from malformation and accident. A snake is a malformation. A kleptomaniac is a misfortune. Both the snake and the kleptomaniac are the product of natural causes, and both are the result of ignorance in combination. So, evil may be defined as ignorance; that is, ignorance in combination — ignorance in things com-

bined. It is our duty to prevent such combinations. It is our duty to destroy the poison-ivy and the scorpion; and, going up higher, to destroy evil insects, birds, reptiles, and animals. It is so in the world below man, it is so in the hierarchy above. The good is ever pugilistic, prone to combination, and accepting the responsibility of battle. Hence the world is constantly growing better; ignorance and evil are growing scarcer, and virtue more belligerent. The conflict is unequal, the good can greatly combine; the evil can combine but slightly. The predatory make war upon the predatory, and coherence between them is weak and feeble. Hence evil is always fighting a losing battle. The time must come when it will be exterminated and wholly disappear. Meanwhile to the front the close and closer compacted battalions of goodness will march; with its ever-increasing armies its leaders will grow in rank and experience; there can be but one outcome,—the sovereignty of the good, and the extermination of the bad.

Sec. 71.—**Devil.** There is a personal God, but there is not a personal Devil, in the sense generally expressed. There is much of evil in existence; there are many things that are bad, but there is no one great representative personality who is the champion of evil, disorder and misrule, and who goes about "seeking whom he may devour." God cannot prevent ignorance nor exterminate the result of it, hence Evil must continue to exist until the cause is removed by education, experience, and evolution. But the Supreme Being can destroy its combination; can scatter its organization and can overthrow its leadership. When He has done this there will be just as much ignorance and evil as before, but it will be routed, diffused, and leaderless. He cannot annihilate evil, but He can reduce it to a maximum of

inertia. A personal, selfish, malignant Devil cannot exist. It would have too many antagonisms below, around and above it. God cannot prevent the existence of evils, but He can prevent their combination. Hence there is no such thing as the "spirit-of-evil" in the sense of a personality. Evil is lonesome, disorganized, solitary and desolate. It is slowly and constantly becoming more enlightened, and, rising in the scale, growing better and better through the ages, as stratum by stratum with a constant uplift it gets into a brighter sunshine and a higher life. There is no room and no possibility for a being, or a combination, having a tendency in the opposite direction. The buoyancy of the current will bear such irresistibly upward. There being no personal devil, and no tendency downward, there is and can be now no "Hell," so called. The slag and cinders of its ancient fires have been, long ere this, covered with a blue-grass sward on which the bright-eyed children of Progress are in multitudes at play.

Sec. 72.—**God.** If progress and improvement are *continuous*, then, in the lapse of time, perfection will be more nearly reached. If progress and improvement are constant factors, some one atom during the flow of an eternity will have achieved supremacy. God is a natural deduction from progress and eternity. Given immortality, progress, and time, then some one atom must become supreme.

The doctrine that there is no Supreme Being has no sanction in logic or philosophy. If an object is moving continuously in a given direction, and toward a certain point, it will arrive there, in course of an eternity, no matter how slowly it may go or how far off the point may be. In the great race, which has been going on so long, one atom has outdistanced all the rest.

By virtue of this He holds an office, a position, which we, in our language, call God. Behind Him are a vast number who constitute a class which we may call a "close second"; and other vast numbers are in a myriad of ranks behind. But this Supreme Being is not omnipotent; He can do more than any other one, more than we can even dream of his being able to do, but He cannot do everything. He is not omnipresent; if He were everywhere He would be everything. But, He can go wheresoever He pleases. He is not omniscient. He knows more than any other one, and more than we can even dream of, but He does not know everything. He will know more and will have more power as time goes on, and He will be more supreme, in that sense, than now, because He also is making progress, and eternity is yet unspent. He has no cause to stop. He is the fortunate one who commands at the head of the column. We are all going in the same direction; we may each hope in time to get nearer to the front. In the infinity of time we may overtake Him; we might,—but it is an ambitious dream,—we ourselves might get near to the head of the column. Nothing but constant effort and constant progress can keep our present leader there; and it is a legitimate exercise of faith and aspiration to try to overtake Him, to achieve the supremacy and be the leader, and maintain it, if perchance we may. He started even with us when we started; He started as humbly as we did; the road is open to us, and eternity is not yet one-hundredth part consumed. Can we overtake Him? It is an idle but delightful dream.

[END OF PREFACE.]

AUTOBIOGRAPHY.

THE AUTOBIOGRAPHY OF ITHURIEL.

1.

Ithuriel said:

Once upon a time I was an atom, whirling through space. I have been chief of an Ion. I have been king of a corpuscle of light; it was composed of more than ten thousand atoms. I have been a crystal time and time again. I have been a spore, a fungus, a lily, an oak. I have been a bee, a bird, a beast. I have lived in the air, in the water, in the earth and on the earth. I have been all kinds of men, from the lowest to the highest. I have had a million mothers, from molecule to man. I have been a savage, a cannibal, a pagan. I have lived by the chase, I have praticed law, I have commanded armies. I have been murdered, have been drowned, have committed suicide. I sailed with Argo; was burned in the circus at Rome.

Afterwards, while enjoying a very happy earthly existence, I was killed by an accident. Here there is a hiatus. It may be a year, it may be a hundred centuries. We take no note of time that lies behind us. We do not miss the space during which we sleep. I lost myself. Was I eaten? Had I been carried away? Was I indeed asleep? What had happened.?

2.

It is a pleasure at times to leave memory behind us. The earth may be likened to a convict colony. All are under sentence there for a definite time or until reformation. We are released upon good behavior. But first we are shackled. Our souls are fastened to a block of clay which holds them down. If it breaks off, another is fastened on, and we wear it until we are fit to be reprieved. This is, of course, only an illustration.

We are permitted to go only when we are fitted to leave the earth and are entitled to the promotion. When we do go we leave far to the rear our hates, our shames, our vain regrets, our meannesses. We go where the angers and revenges of others cannot follow us. The debts we owed cannot pursue us. We retain our experience, but it is not coupled with a memory or a pang. We hold our education, but it is unburdened with a sorrow. Memories are unimportant when we go to a place, and to a condition, where they are wholly irrelevant. Hence when we leave the earth we leave our memories behind us, but we may go back and trace our pedigrees if we wish.

3.

After my life on the world, as I said before, there was a hiatus; but, whatever its length, it was immaterial. What I do know is that I woke up in a beautiful world. I was a child; I had just been born. Time and years passed; I received and listened to instructions. I found out that the latter part of my former life had been spent upon the earth, and I began to take much interest in that planet and to study it. Strange were the mental faculties of the members of the race into which I had been thrown. They had a sixth sense—they could read each other's thoughts. As we go upward we grow into the possession of additional faculties. It is a delightful world where each one knows what the other is thinking of, and knows that the other knows it. It does away with envy, hate, and malice. These cannot exist without being seen, as in the clear sunlight; and they are blasted by the light. Hence it was a happy place where I was then newly born.

4.

My new parents took care to instruct me. They told me

that I was then in the constellation El Moran; that the sun and earth belonged to this constellation, but were so far away that the sun was only visible as a star of the smallest magnitude. They told me that I could go to the earth, but that it was like traveling through a long and barren desert to visit some far-off oasis.

We did not do much talking—we just *thought* at each other. We used spoken words only when we wished to be emphatic. On the planet Algomar, where we were living, the inhabitants were very numerous, and in shape like human beings of the earth, only larger and more finely formed. They were engaged in daily occupations, were constant and active workers, and were always talking about fitting themselves for a higher existence. There was a great rivalry among them to know, to learn and to do. Some were stronger, more able, more intelligent than others, but there was a feeling of fraternity among them and they all pulled together.

5.

The people of Algomar were long-lived, a thousand years or more (as reckoned on earth), and they had time to accumulate much knowledge, which each was willing to impart to all. Some families had more than a hundred children. There was no margin between the population and the supply of food, for there was enough for all. The air was an entirely different compound from that on earth, and was full of life and vigor. All believed in a glorious immortality, going up step by step, and death was considered a matter of course and contemplated without dread. The forces of nature remained true and unchanging, but the power of mind seemed to control them; for instance, the force of gravitation, as it is called, existed, and all were bound by it

except when they willed against it. Every person had the power, by a strong effort of will, to overthrow or neutralize the force. Hence by an effort of mental energy each was free to go as he pleased from planet to planet, or from star to star; but could not leave the constellation. Each could go to any part of it, and there were those who had traveled much, although travel was dangerous. Many lost their lives thereby, for they have death there as elsewhere. They could, by a mental endeavor, free themselves from all attraction or attractive inherency, and, by a powerful effort, go where they willed as with the rapidity of light.

6.

The people of Algomar always traveled from place to place in the current of the rays of a star, as if along a beaten highway; that is, they traveled in the highways of greatest light. There were many who could travel without danger, or suffering, but there were many more who could not. To many, such trips as these were full of pain and peril and were beyond their range of steady will. A few others could go where they pleased. The inhabitants of El Moran weighed practically nothing, yet they were not weak or ethereal; on the contrary, they were powerful, vigorous and active. When one of them went from place to place it was, in weight, but the transfer of a feather; in power, it was the moving of a giant. They were light in weight because their food was volatile; they had no bones or grosser formations; they were each simply a collection of atoms held in place by will, and consent. They could be as flexible and ductile as mist, or, at will, as firm and inflexible as steel. They could change their forms by will the same as an actor in a play could impersonate another. Each one could assume his own

form of beauty and each one was beautiful in the degree of his own thoughts, the mind arranging it.

7.

While this power of assuming shapes at will exists, it is seldom used, because no one can be deceived by it, owing to the fact that every one can read anyone's thoughts; so no one would make the change for purposes of deception. Anyone could, however, at will change himself into the outward form of a bird or an animal, and immediately again at will resume his former shape. All could walk where they pleased; they were almost tireless; they could fly where they pleased,—not with wings, for they had no wings, but by mental effort. They wore clothing to ward off the light on which they to some extent fed. It was cleanly to wear clothes. Their temperature was that of their surroundings; they could travel and live anywhere where there was light; it was a sufficient but not a strong food.

8.

The form of government on Algomar is democratic; politics and public duties are quite simple, since everybody can read anybody's thoughts. After I had been in public life several hundred years I was detailed by the sovereign of the nebula as a messenger, and became used to traveling, and was sent on many a message to the Earth, principally to report its condition to headquarters. In one sense we looked upon the Earth as a garden where was slowly developing and growing a valuable crop. The Earth was watched as a farmer watches a growing field of wheat. Having been through an existence on Earth, I was pleased to revisit it. They told a story about me and Adam and Eve which was incorrect, yet quite true to life. Adam and Eve came before my time. The story is a very, very old one.

The story ran that the Devil visited the Earth and tried to tempt Eve, and that I interfered. Thus—

> Him [the Devil] there they found
> Squat like a toad, close at the ear of Eve.
> . . . . . .
> Him thus intent, Ithuriel with his spear
> Touched lightly; for no falsehood can endure
> Touch of celestial temper, but returns
> Of force to its own likeness. Up he starts,
> Discovered and surprised.

9.

The story about Adam and Eve, as I heard it told, is about as follows:

It was determined to improve the grade of beings on the Earth. It would be a benefit the same as it would be to improve the grades of wheat or cattle upon a farm. The higher the quality the better food. The Earth was densely populated, but had become fitted for something better. Adam and Eve were introduced for that purpose; they were not the first human beings, but were the first white beings. This was not difficult; almost anyone living in the upper realms may be born at will on the Earth. All they need do is to condense themselves into a point, come down to Earth, enter some human being and effect their own birth. It is being done, by order, from time to time. The fact that a man can be born of a virgin is not uncommon nor unreasonable; it has been known, at times, to have happened. Married women have thought they had children born of heaven. Women as well as men have come from the upper realms and have acted their parts in the great drama on the stage below. Many have been born on Earth who have had the distinction of having first been born in Heaven. There have been marked

eras when the Earth seemed to have had, upon its intellectual soil, the sowings of celestial seed. It is martyrdom for those who come; and disappointment, for they are controlled by conditions;—but the grade of the human harvest is constantly improved. Adam and Eve were placed south of the Caucasus, in what was then the best and most civilized part of the Earth; and their descendants settled that portion and spread far to the west and south and became known as the Caucasian race. The story is that a mythical person, the Devil, appeared to Eve in the form of a toad and whispered in her ear; and that I appeared and with my spear touched him and made him assume his original and upright shape.

10.

This story of Adam and Eve as stated is not accurate; it happened before my time, but I have no doubt that something like it happened. The placing of Adam and Eve on the Earth was a well-known fact at the time; persons were not unfrequently visiting the Earth from our constellation, any one of whom could have assumed the form of a frog or any other animal, and could have talked to her. I know of no such person as the Devil; he, whoever he is or was, told her the truth, as it then was. If I had been there I could have read his thoughts, penetrated his disguise, and would no doubt have notified him of the fact, and he would have known what I thought about it and would have come out of his disguise. The story is truthful enough in point of possibility, but not so in fact.

11.

For a long while my duties were those of an aide-de-camp. I was sent hither and thither to get and report information.

There were in our constellation thousands of worlds which had to be looked after. They were like islands in the sea: some of them were hard to reach. Some of them were worthless. The earth was a barren little island, mostly covered with salt water. The productions of these island-spheres was a matter of necessary attention. They were like farms or distant patches of land in cultivation. They required care and attention. From them came some of our principal food products. It was our duty to keep improving and bringing up to a higher grade, the productions of these places. We did with them the same as a farmer on the earth would do with his flocks and fields—we supervised them. We transplanted from one earth to another to improve the product. It was always a constant fight between the lower and the higher, between the domesticated and the aggressive immigrant. Hence the number of overseers, or aides-de-camp, was very great; it was hard and dangerous work.

12.

There were many in our celestial sphere who had lived on the earth and had philanthropic wishes and aspirations. Their notions were to benefit and exalt those above whom they had so greatly risen; those whom they had been associated with, but had excelled. These higher souls occasionally, as missionaries, went to live and work among those below. It was anything but pleasant work, but was of incalculable benefit to those whom they visited. These missionaries to accomplish their purposes were obliged to leave their surroundings, happy as they were, and go to the earth and be there reborn, leave their memories behind, leave their happiness behind, and spend their lives in strenuous and often fruitless efforts to improve and benefit those

for whom they labored. These efforts were mostly beneficial, but the benefits often came late and at great cost and suffering. Some of these earthly visitors were men and some were women; many of whom were afterwards appreciated and called "Saints." Some there were who made several visits.

13.

I am at present an archangel; that is, a supervising messenger. I have certain territory, and I send out messengers (angels) as ordered, supervise their work and consolidate their reports. It has become so that I very much like my work. I am at home about half of my time. The place where I live on Algomar is beautifully located; we have no cities as such, we have no police system, and no want of safety. All live where they please, because they can go as they please, when they please, and as quickly as they please. They can call each other up by thought.

It is not easy to describe the landscapes and vegetation in any understandable way; for instance, magnetism is a substance; rivers of metallic magnetism, like quicksilver, flow down through broad valleys. There is, near where I was born, a tree over half a mile through the base and twenty-five miles high; it is of copper; its bark is a sulphite thrown off in the growth. The copper has been educated apast its former life-habit of forming mere fixed angles of crystallization, and has become skilled in the lore of vegetation and is now composing and building trees.

14.

My wife is a most beautiful woman; I was married to her once before while on earth and I think twice before that, but as to the latter am a little hazy,—but she says three times. She has located some of her former children and is happy over it.

We have many children by our present marriage; as to former existences in other and distant spheres, they have stories and memories of their own. My neighbors are genial, kindly and wise, and have plenty to do with their children and affairs; each puts in a fair portion of his time in making others happy. When each is devoted to making all others happy, each has enough to do. Of course there are among us those who are ambitious; this is well known to all, because we each read the others' thoughts; but as there are those who are wiser than others, some are allowed the sway of their ambitions more or less; so, among the communities there are those who exercise authority by concession.

15.

There is one thing that always, as in the spheres below us, at all times confronts us, and that is death. In the first place, we cannot of our own will leave our constellation. We can at all times by an effort of will overcome that power in the constellation called "attraction," but by no effort of will can we leave the constellation. Death comes sooner or later to all. The ruler of our constellation is no exception. His desire is, as we all know, that the constellation shall progress and be a better and better place to live in. We are taught that on our deaths we may go to a higher, better and more perfect life, in a grander and better constellation. We are taught that there are above us, higher and grander forms of life and existence to which we may attain. But we are taught that no one can or will leave this constellation until fitted for the next. This is so here on earth, where men are born and born again until they have reached that mode of life and thought that may be likened to satiety. When men have been born and born again upon the earth and

lived lives until they have seen the shallowness and emptiness of its vanities and follies, and want something better, then only are they qualified for promotion. As long as they are willing to continue in the race of avarice, or the scramble of worldly ambition, then so long are they of the earth earthy, and so long will they stay, and by so much slacken their speed in progress toward the goal. No one can be sent up higher until he is fitted to go. This is a self-imposed and self-inflicting punishment. Most men will not be promoted, because they will not allow themselves to be promoted. Thus the unworthy do not leave the sphere of Earth for a higher plane until by self-imposed effort they have procured the soul-equipment for the higher plane.

16.

As on the earth, so in the place where I live: there its people are born and born again until they are fitted for a still higher life on a still higher plane.

We know as little about what is above us as the people of the Earth know of what is above them. So all of our teachers teach us. I do not know whether I am fitted for a higher plane, because I so much enjoy the one I am in. I probably am not. I am so much satisfied with my present existence that it may be long before I care to change it. I am inclined to suppose that there are missionaries among us from higher spheres, but I have the same inertia as the human race seems to have on earth; I am complaisant. Perhaps I am yet too fresh from the lower orders; I have already lived in this one life in these beautiful surroundings more than a thousand years, and wish I might ten thousand more; I am not ready to leave it, at least not prepared in my mind so as to be willing.

When I look around and see how many I have excelled in the race, and how far I am ahead of those who may have been my earlier associates, I have the mental inertia that asks no change.

My autobiography is the autobiography of a brief and successful career. I will be back soon again; on my next visit will tell you more about it; there is now something special which I wish to say — [this, being private and personal, is omitted.]